Manitoba Water Stewardship

Annual Report
2004 - 2005

Manitoba

MINISTER OF WATER STEWARDSHIP

Legislative Building
Winnipeg, Manitoba, CANADA
R3C 0V8

His Honour The Honourable John Harvard, P.C., O.M.
Lieutenant-Governor of Manitoba
Room 235
Legislative Building
Winnipeg MB R3C 0V8

Your Honour:

I am pleased to present the Annual Report of Manitoba Water Stewardship, for the year ending March 31, 2005.

"The best water for all life and lasting prosperity" is Manitoba Water Stewardship's vision. We work towards achieving our vision by providing leadership in environmental stewardship for the benefit of current and future generations of Manitobans so the social, economic and inherent environmental value of water is protected and realized.

This report details the department's many accomplishments over the past fiscal year.

Manitoba Water Stewardship, through new and ongoing initiatives, addressed several key priority areas, including:

- The Lake Winnipeg Action Plan to improve water quality;
- *The Water Protection Act* being introduced into the House for second reading;
- The protection of Manitobans from floods through *The Manitoba Floodway Authority Act* which was proclaimed in November 2004;
- Continuing to challenge North Dakota Devils Lake water diversion project;
- Fisheries Enhancement Initiative funding 277 projects directed at enhancing fish populations and their habitat as well as funding educational opportunities; and
- The Fairford Water Control Structure being rehabilitated.

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Manitoba Water Stewardship is dedicated to providing effective programs and services which result in the betterment and safety of our water resources for Manitoban's use and recreation. The Annual Report lays out detailed information on the programs and activities that take place around the province in service of Manitobans.

Respectfully submitted,

Steve Ashton
Minister of Water Stewardship

Manitoba

Deputy Minister of
Water Stewardship

Legislative Building
Winnipeg, Manitoba CANADA
R3C 0V8

The Honourable Steve Ashton
Minister of Water Stewardship
Room 314, Legislative Building
Winnipeg MB R3C 0V8

Dear Minister:

I am pleased to provide the Annual Report of Manitoba Water Stewardship for the year ending March 31, 2005.

The Department and its staff have accomplished many goals over the past year. Their skills and dedication have contributed to the safety and sustainability of our water resources and resulted in many productive activities with positive outcomes, including:

- Protecting transboundary water quality to meet the public's need, including significant efforts related to the Devils Lake Outlet and Garrison Diversion projects;
- Significant work on the Manitoba's Nutrient Management Strategy that led to the establishment of the Lake Winnipeg Action Plan and establishment of a stewardship board for the Lake;
- Nineteen integrated watershed management planning initiatives are in place through continued participation in the Province's 16 Conservation Districts;
- Enhanced technical support to water treatment plant operators and technical regulation, advice and monitoring assistance related to public water supply issues;
- Technical and grant support of the Manitoba Water Services Board to partner with local governments on sewer and water projects costing over $26 million in 76 municipalities;
- Regular monitoring of water levels to support flood warnings during peak periods and protection through means such as operation of the Red River Floodway and the Fairford Water Control Structure;
- The construction of water control and drainage structures across the Province;
- Regular monitoring of water quality at Manitoba's beaches to ensure safety of recreational users;
- Continued work toward protection of endangered aquatic species in Manitoba in cooperation with federal counterparts; and
- Enhancing fish populations through the Fisheries Enhancement Initiative and promoting sustainable fishing practices through participation in programs such as Winnipeg's Urban Partnership as will as the recreational fishing league for youth aged 9 to 15 years.

The following report outlines further accomplishments for the 2004/05 fiscal year in greater detail.

Respectfully submitted,

Gerry Berezuk
Deputy Minister of Water Stewardship

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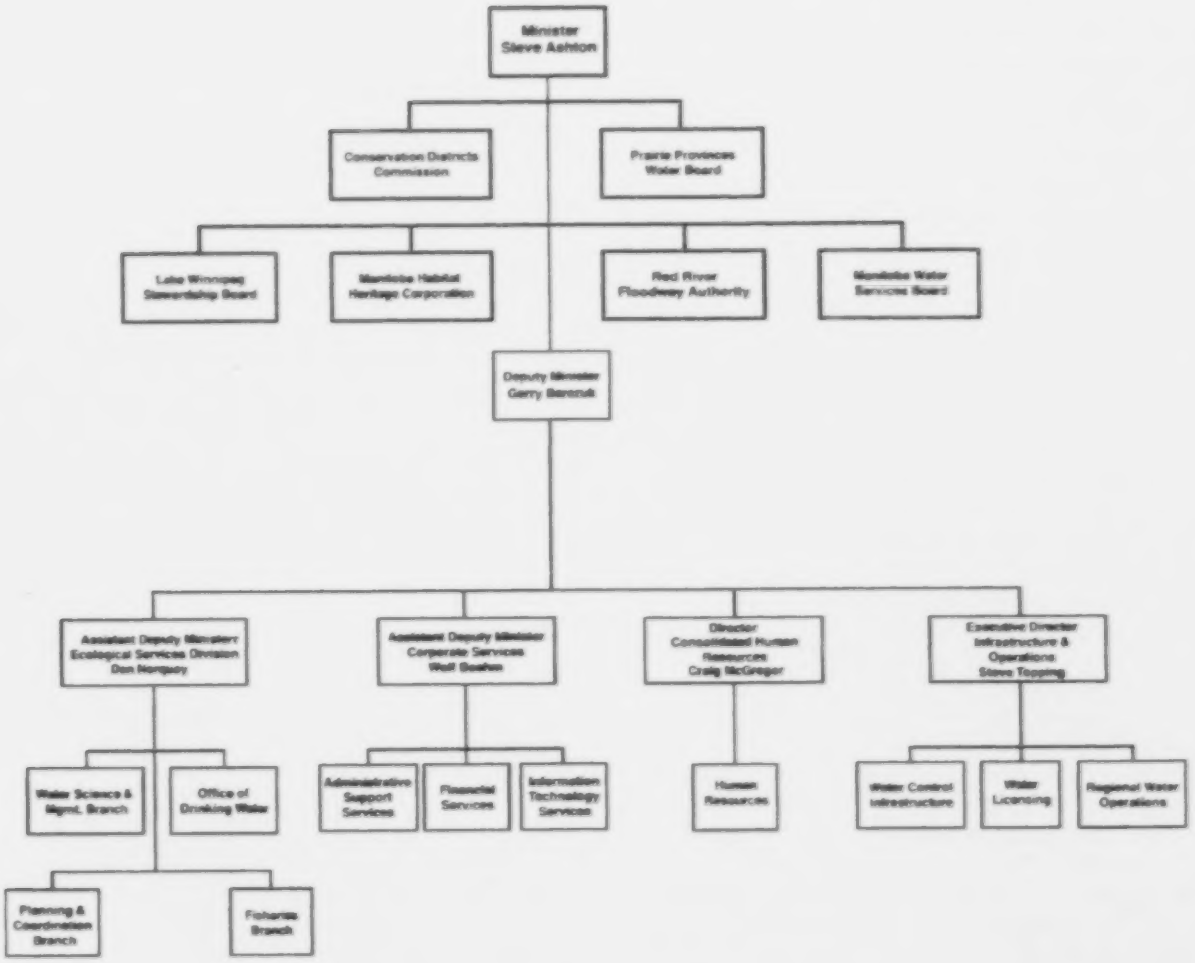
WATER STEWARDSHIP
ORGANIZATION CHART
2004-2005



GESTION DES RESSOURCES HYDRIQUES MANITOBA ORGANIGRAMME 2004-2005

Introduction

Manitoba Water Stewardship has a mandate to protect, conserve and enhance the province's water, fishery resources and aquatic ecosystems, for the equal benefit of present and future generations; to protect the safety of public drinking water supplies from source to tap; to assist in the provision of water and sewage facilities to rural communities; to protect people and property from floods; and to contribute to the sustainable development of the sectors of the provincial economy where water plays a major role.

The department is responsible for all water management and clean water initiatives. In this regard it will work to improve water standards and water infrastructure across Manitoba.

The department carries out its mandate in a co-ordinated way, in collaboration with Manitobans and other governments, through the delivery of policy development, watershed planning, and scientific research, monitoring and forecasting services, and resource management programs; the administration of inspection, testing, and regulatory compliance programs and other initiatives; the administration of water rights and drainage licensing; the provision of support and technical assistance to municipalities in the construction of water and sewer infrastructure; and the construction, maintenance, management and operation of Manitoba's waterway, drainage and flood protection infrastructure.

The department is made up of a number of operating units as outlined in the organization chart on page 10. It should be noted that this organization structure is still evolving.

Highlights

Water

- Agreements were reached with local stakeholders on the final management plans for the inter-provincial (MB and SK) Swan Lake Basin and for the Assiniboine Delta Aquifer.
- The Wuskwatim Generation and Transmission Line projects entered their final licensing stages by the end of the fiscal year.
- Nineteen integrated watershed management planning initiatives were either initiated or continued. Six municipalities, one city and two towns joined the Conservation District Program and five new Conservation District development proposals were drafted for consideration by area municipalities.
- Bill 22, *The Water Protection Act*, was introduced into the house for second reading. This Bill reflects the priority legislative amendments recommended in The Manitoba Water Strategy.
- *The Manitoba Floodway Authority Act*, was proclaimed November 2004. This legislation establishes a separate, independent and accountable authority to complete the expansion of the Red River Floodway on behalf of Manitoba residents. The Red River Floodway Authority would own the floodway's physical assets and be responsible for its expansion and maintenance. The authority to operate the Red River Floodway remains with Manitoba Water Stewardship.
- Manitoba continued to challenge the North Dakota's Devils Lake water diversion project.
- Water quality issues on Lake Winnipeg were responded to, which led to the posting of advisory signs at four beaches; two due to elevated E. coli bacteria and two due to toxic algae. Studies were carried out to identify the source of E. coli in water at some beaches.
- The Assiniboine River Study was completed. Information generated from this sturdy will assist in ensuring that existing and future development along Assiniboine River occurs in a sustainable manner.
- In conjunction with Manitoba Health, Water Quality Branch developed the Clean Beaches Program committed to reducing health risks to beach visitors from water-borne illness.
- Three multi-year projects were undertaken: South Buffalo Creek drain enhancement project was completed, significant refurbishment work was undertaken on the Fairford Dam and Control Structure, and engineering studies and land acquisition was undertaken in the Shellmouth Dam Federal-Provincial project.
- Refurbishment work was completed on the Red River Floodway Inlet Control Structure, and three major bridges, crossing provincial waterways were replaced: the Canadian Pacific Railways bridge over Tourond Creek (Emerson Subdivision), the Canadian National Railways bridge over the Portage Diversion (Gladstone Subdivision), and a bridge over Hespeler Drain.
- Two regulations were drafted to support *The Drinking Water Safety Act*. Supporting information materials, draft licenses and permits were prepared for release of these regulations.

Fisheries

- Whiteshell Fish Hatchery Visitor Centre gave tours to 3,905 people from June to the September long weekend. Interpretative exhibits include information on species reared at the hatchery, life stages of fish, how water is used, the history of the hatchery, aquatic invasive species, and ecosystem interaction.
- The Branch continued to participate in the national Aquatic Invasive Species, Aquaculture and Recreational Fishing Task Groups and co-chair the national Freshwater Fish Strategy Task Group. These Groups, reporting to Canadian Council of Fisheries and Aquaculture Ministers, are developing co-ordinated action and implementation plans that involve stakeholders and maximize management efficiency and effectiveness.

- The Fisheries Enhancement Initiative funded 277 projects directed at enhancing fish populations and their habitat as well as funding educational opportunities. Ongoing stream bank restoration through fencing, off-shore livestock waterers, controlled crossings and revegetation work continues on Lake Irwin, Brookdale Drain and Boggy, Pipestone, Graham and Stoney creeks. This year, educational opportunities funded were the purchase of floor tanks to provide northern youth hatchery husbandry training, a brochure and map identifying trout stocked waters and fishing tips, and a youth fishing booklet.

  Projects that physically improve fish habitat included:
  - the installation of aeration units in Eagles Lake and Twin Lakes to reduce winterkill,
  - the construction of riffles in Cooks Creek.

  Other proposal submissions covering new initiatives were:
  - a creel census' for Athapapuskow and Kississing lakes,
  - a project to limit the risk for spreading/transferring rainbow smelt,
  - an oxytetracycline (OTC) study to determine the contribution of hatchery reared walleye to the Lake Manitoba commercial fishery.
- Work continued toward the protection of endangered aquatic species in Manitoba by working with the Federally appointed Committee On the Status of Endangered Wildlife in Canada (COSEWIC). In the past year, eight species status reports were reviewed including arctic char and lake sturgeon which are native to Manitoba. COSEWIC determined there was insufficient data for both reports to make a proper status review. As a result, it was recommended they be re-drafted and submitted for review the next year.
- Continued to participate in *Manitoba Envirothon* by co-chairing the test-writing committee, preparing questions, and assisting in the field day and oral components. *Envirothon* is an annual Olympic-style academic and environmental program. High school students (Senior I to IV) are tested in four discipline areas (aquatics, forestry, soils, and wildlife) and an annual theme (this year: Natural Resources in an Urban Environment). This year the competition was held at Brandon; 27 Manitoba school teams entered. The winning team from Manitoba represented their province at the *National Canon Envirothon* in West Virginia.
- Winnipeg's Urban Angling Partnership continued to provide Winnipeg residents and visitors to the city with an opportunity to participate in a number of angling activities throughout the summer. Each year the partnership invests over $100,000 back into the recreational fishery along the Red and Assiniboine rivers.
- The Recreational Fishing League, for youth aged 9-15 years, entered its fifth year. Sixteen teams of six to eight children and two coaches, fished once a week for six weeks. Teams were awarded points by lengths of fish caught to determine a League winner. Results were posted on a Website (www.mwf.mb.ca/League) to allow participants to follow League action. Partners included Manitoba Wildlife Federation, Pure Fishing (Berkley Canada), and Recreation Connections. An expanded program is planned for 2005 with Manitoba Wildlife Federation as lead organization.

Manitoba Water Services Board

- The Board undertook water and wastewater related infrastructure works in 76 locations, at a total cost of $26.5M of which $10.32M were provincial grants.
- Major works undertaken were: Binscarth lagoon expansion, Brokenhead (Tyndall/Garson) water and sewer system, City of Portage la Prairie water treatment plant upgrading and Morris rural water supply.
- Under agreement with Manitoba Conservation, a new water treatment plant was constructed at Falcon Lake in Whiteshell Provincial Park.

Manitoba Habitat Heritage Corporation

- Provincial government provided $645.0 for the North American Waterfowl Management Plan operations. This funding maintains a network of staff to carry out field delivery, communications, management and reporting activities.
- everal programs were delivered by the Corporation including: Riparian Health Initiative, Species at Risk and Manitoba Agro Woodlot.

Présentation

Gestion des ressources hydriques Manitoba a le mandat de protéger, de conserver et d'améliorer les ressources hydriques, les ressources de la pêche et l'écosystème aquatique de manière à ce que les générations actuelles et à venir puissent en profiter tout autant; de protéger l'approvisionnement en eau potable de la source au robinet; d'aider à la mise en place de réseaux de distribution d'eau et d'égouts dans les collectivités rurales; de protéger les gens et les biens contre les inondations; et de contribuer au développement durable des secteurs de l'économie provinciale pour lesquels l'eau joue un rôle majeur.

Le ministère est responsable de tous les projets de gestion et d'assainissement de l'eau. Il cherche à cet égard à améliorer les normes et les infrastructures hydrauliques dans l'ensemble du Manitoba.

Le ministère s'acquitte de son mandat de façon coordonnée et en collaboration avec les Manitobains et les autres gouvernements, en assumant les tâches suivantes : élaboration de la politique, planification hydrographique, recherche scientifique, services de surveillance et de prévision et programmes de gestion de la ressource; administration des programmes d'inspection, d'essais et d'application de la réglementation entre autres initiatives; administration des droits relatifs à l'eau et des permis de drainage; soutien technique aux municipalités construisant l'infrastructure du service d'eau et d'égout; et construction, entretien, gestion et opération de l'infrastructure des voies navigables, de drainage et de lutte contre les inondations.

Le ministère regroupe un certain nombre d'unités administratives tel qu'illustré dans l'organigramme de la page 11.

Faits saillants

Eau

- Des ententes ont été conclues avec les intervenants locaux relativement au plan définitif de gestion interprovinciale (MB et SK) du bassin du lac Swan et à l'aquifère du delta de l'Assiniboine.
- Le projet de production et de transport d'hydroélectricité du lac Wuskwatim avait atteint à la fin de l'exercice le stade des dernières demandes de licence.
- Dix-neuf initiatives de planification hydrographique intégrée ont été mises en route ou poursuivies. Six municipalités, une ville et deux villages ont adhéré au programme des districts de conservation et cinq nouvelles propositions de création de district de conservation ont été ébauchées pour examen par les municipalités de la région.
- Le projet de loi 22 (*Loi sur la protection des eaux*) a été présenté au parlement en deuxième lecture. Ce projet de loi tient compte des modifications prioritaires recommandées dans la Stratégie manitobaine de gestion de l'eau.
- La *Loi sur la Commission du canal de dérivation du Manitoba* est entrée en vigueur le 1er novembre 2004. Elle confie à une autorité distincte, indépendante et responsable le pouvoir de réaliser l'agrandissement du canal de dérivation de la rivière Rouge au nom des Manitobains. La Commission du canal de dérivation de la rivière Rouge serait propriétaire des biens durables et responsable de leur agrandissement et de leur entretien. Gestion des ressources hydriques Manitoba demeure responsable de l'opération du canal de dérivation de la rivière Rouge.
- Le Manitoba a maintenu sa contestation du projet de déviation du Devils Lake au Dakota du Nord.
- Les préoccupations au sujet de la qualité de l'eau du lac Winnipeg ont mené à l'affichage d'avis concernant deux plages, en raison de la présence accrue de la bactérie E. coli due à des algues toxiques. Des études ont eu lieu afin d'identifier la source de bactéries E. coli dans l'eau de certaines plages.
- L'étude du bassin de la rivière Assiniboine a été complétée. Les renseignements tirés de cette étude permettront de s'assurer que les développements existants et futurs le long de la rivière Assiniboine se déroulent de façon durable.
- Conjointement avec Santé Manitoba, la Section de la gestion de la qualité des eaux a développé le programme des plages propres (Clean Beaches) visant à réduire les risques sanitaires que constituent les maladies d'origine hydrique pour les utilisateurs des plages.
- Trois projets pluriannuels ont été entrepris : le projet d'amélioration du drainage a été complété ; d'importants travaux de remise en état ont été effectués au barrage et à la structure de contrôle de la rivière Fairford; et des études d'ingénierie et d'acquisition de biens-fonds ont été entreprises dans le cadre du projet fédéral-provincial du barrage de la rivière Shellmouth.
- Des travaux de remise en état ont été effectués à la structure de contrôle d'entrée du canal de dérivation de la rivière Rouge et des ouvrages de traversée de cours d'eau provinciaux ont été remplacés : pont du CPR à Tourond Creek (subdivision Emerson), pont du CPR sur la Portage Diversion (subdivision Gladstone), et pont sur Hespeler Drain.

Pêcheries

- Le personnel du centre d'accueil de la pisciculture de Whiteshell a fait visiter les lieux à 3 095 personnes entre juin et le week-end de la fête du Travail. Les panneaux d'interprétation fournissent des renseignements sur les espèces élevées à la pisciculture, les stades du développement des poissons, la façon dont l'eau est utilisée, l'histoire de la pisciculture, les espèces aquatiques envahissantes et l'interaction des écosystèmes.

- La Direction continue de participer aux travaux des groupes de travail sur les espèces envahissantes, l'aquaculture et la pêche récréative, et de coprésider le groupe de travail national sur la stratégie relative aux poissons d'eau douce. Ces groupes de travail, qui rendent compte au Conseil canadien des ministres des Pêches et de l'Aquaculture, élaborent des plans d'action et de mise en oeuvre concertés avec la participation des intervenants, assurant ainsi une gestion des plus efficaces.
- Dans le cadre du Projet de mise en valeur de la pêche, on a financé 277 projets visant à améliorer l'habitat des populations de poissons et à financer des projets d'enseignement. Les travaux de restauration des berges par différents moyens (clôturage, aménagement d'auges, croisement contrôlé, restauration de la végétation) se poursuivent pour différents points d'eau : lac Irwin, rigolet et marécage Brookdale et les criques Pipestone, Graham et Stoney. Les projets d'enseignement financés au cours de l'année comprenaient l'achat d'aquariums de plancher pour donner aux jeunes du Nord une formation en élevage d'alevins, la préparation d'une brochure et d'une carte indiquant les emplacement des plans d'eau à truites et contenant des conseils sur la pêche et une brochure sur la pêche pour les jeunes.

  Les projets qui ont permis d'améliorer l'habitat des poissons comprenaient :
  - L'installation d'unités d'aération à Eagle Lake et à Twin Lakes pour réduire la martégade,
  - la construction de seuils à Cooks Creek.

  D'autres propositions soumises portaient sur de nouvelles initiatives, notamment :
  - relevé des prises pour les lacs Athapapuskow et Kississing,
  - limitation des risques de transmission de l'éperlan arc-en-ciel,
  - une étude sur l'oxytétracycline (OTC) afin de déterminer la contribution du doré jaune élevé en pisciculture à la pêche commerciale sur le lac Manitoba.
- Les efforts visant la protection des espèces aquatiques menacées de disparition au Manitoba se sont poursuivis en collaboration avec le Comité sur le statut des espèces menacées de disparition au Canada (CSEMDC), nommé par le gouvernement fédéral. Au cours de la dernière année, des rapports sur la situation de huit espèces - dont l'omble de l'Arctique et l'esturgeon de lac, deux espèces indigènes au Manitoba - ont été étudiés. Le CSEMDC a déterminé que, en raison de l'insuffisance des données, les deux rapports ne permettaient pas de procéder à un examen approprié de la situation. On a donc recommandé que les rapports soient revus et corrigés et présentés de nouveau l'année suivante.
- La Direction a continué de participer au *Manitoba Envirothon* en coprésidant le comité de rédaction du test, en préparant les questions et en prêtant main-forte à l'organisation de la journée et des composantes orales. L'*Envirothon* est un programme scolaire et environnemental s'inspirant des Olympiques. Il met à l'épreuve les connaissances d'élèves du secondaire (secondaires 1 à 4) dans quatre disciplines (vie aquatique, foresterie, sols et faune) à l'intérieur d'un thème donné (le thème de cette année était les ressources naturelles en milieu urbain). Cette année, le concours se tenait à Brandon et 27 équipes de différentes écoles du Manitoba y ont participé. L'équipe gagnante du Manitoba représentera la province au *National Canon Envirothon*, qui se tiendra en Virginie occidentale.
- La Direction a créé un site Web sur le développement durable afin d'intégrer les concepts de développement durable au nouveau Cadre manitobain des résultats d'apprentissage en sciences de la nature (maternelle à secondaire IV). Ce site Web est le premier au Manitoba à intégrer des renseignements sur la pêche au programme d'études en sciences de la nature au moyen d'Internet. On a fait connaître le site lors d'ateliers et de conférences réunissant des enseignants, comme l'atelier sur les sciences du Special Area Group. La préparation d'exercices pour les élèves de secondaire III et IV se poursuivra avec les enseignants, afin que tout soit prêt à l'automne 2005.
- L'Urban Angling Partnership de Winnipeg a donné l'occasion à des résidents et à des visiteurs de Winnipeg de participer à diverses activités de pêche durant l'été. Chaque année, l'organisme réinvestit plus de 100 000 $ dans la pêche récréative le long de la rivière Rouge et de la rivière Assiniboine.

- La ligue de pêche sportive, qui s'adresse aux jeunes de 9 à 15 ans, en est à sa cinquième année. Ainsi, 16 équipes regroupant six à huit enfants et deux entraîneurs, sont allées à la pêche une fois par semaine pendant six semaines. Les équipes recevaient des points en fonction de la longueur des poissons pêchés, ce qui permettait de déterminer l'équipe gagnante. Les résultats étaient affichés sur un site Web (www.mwf.mb.ca/Leaque) pour que les participants puissent suivre leur progression dans la ligue. Les partenaires de ce projet sont les suivants : Manitoba Wildlife Federation, Pure Fishing (Berkley Canada) et Recreation Connections. Le programme prendra plus d'ampleur en 2005 sous la direction de la Manitoba Wildlife Federation.

Commission des services d'approvisionnement en eau du Manitoba

- La commission a entrepris des travaux d'infrastructure liés à la gestion de l'eau et des eaux usées dans 76 sites, pour un coût total de 26,5 M$ dont 10,32 M$ en subventions provinciales.
- Voici la liste des travaux majeurs qui ont été entrepris : agrandissement de l'étang de Binscarth, système de service d'eau et d'égout de Brokenhead (Tyndall/Garson), améliorations à l'usine de traitement des eaux de Portage la Prairie, et distribution d'eau rurale à Morris.
- Conformément à l'entente avec Conservation Manitoba, une nouvelle usine de traitement des eaux a été construite à Falcon Lake dans le parc provincial Whiteshell.

Société protectrice du patrimoine écologique du Manitoba

- Le gouvernement provincial a fourni 645,0 $ pour l'exploitation du Plan nord-américain de gestion de la sauvagine. Ce soutien permet d'affecter un réseau d'employés à l'exécution des activités de livraison, communication, gestion et communication.
- La Société a dispensé plusieurs programmes, notamment : la Riparian Health Initiative, Espèces de poisson en péril et Manitoba Agro Woodlot.

Sustainable Development Activities and Accomplishments

The Department name Water Stewardship exemplifies commitment to the Sustainable Development Principle of **Stewardship**. The Department in its Vision, Mission and Values clearly articulates its commitment to ensuring today's decisions are balanced with tomorrow's effects recognizing that Manitobans are caretakers of water resources for the benefit of present and future generations.

Section 12(1) c of the Sustainable Development Act requires each department to integrate into its annual reporting process information respecting its progress made in incorporating sustainable development into its activities. The information in this section is divided into two sub-sections;

1. the first outlines the proposed Water Protection Act and how it incorporates the Principles and Guidelines of Sustainable Development,
2. the second describes examples of some of the activities the Department has undertaken to incorporate or apply the Principles and Guidelines of Sustainable Development into its everyday operations and activities.

1. *The Water Protection Act*

The introduction of ***The Water Protection Act*** into the Legislature in March of 2004 represents the single most significant action of the Department to ensure the Principles and Guidelines of Sustainable Development are incorporated into and applied in its everyday operations.

The Act embodies and articulates Sustainable Development Guidelines and Principles in establishing the legislative framework around which Manitoba's water resources will be protected. It provides a key legislative mandate for the Department of Water Stewardship.

Reflecting the three spheres of sustainable development; the environment, the economy and society, the purpose of The Act is to provide for the protection and stewardship of Manitoba's water resources and aquatic ecosystems, recognizing the social and economic well being of Manitobans is dependent upon the sustained existence of a sufficient supply of high quality water.

The Act provides specific legislated mechanisms for achieving Sustainable Development Principles and Guidelines;

- Part 4 – "Watershed Planning" institutionalizes the Sustainable Development Guidelines of **Integrated Decision Making and Planning, Stewardship, Integration of Environmental and Economic Decisions**, and **Public Participation** by establishing the framework and requirements for Integrated Water Planning and Management and by specifying the requirement to provide forums which encourage and provide opportunity for Manitoban's to participate in the planning and decision making processes. Integrated Water Planning and Management also requires that participating Manitobans acknowledge greater responsibility and accountability for the stewardship of our water resources thus incorporating the Sustainable Development Principle of **Shared Responsibility and Understanding.**
- Section 6 – "Water Conservation" supports the Sustainable Development Guidelines of **Efficient Use of Resources** and **Waste Minimization**.
- Sections 19 through 24 establish the Manitoba Water Council. This creates a further forum through which Manitobans can meaningfully participate in decision making around the protection and management of water resources; and represents an application of the Sustainable Guideline of **Public Participation.**
- Section 38 – "Public Registry" ensures timely access by Manitobans to information relating to any draft regulations, orders or any approved Watershed Management Plan thus applying the Sustainable Principle of **Access to Information.**

- Section 29 establishes the "Water Stewardship Fund", the purpose of which is to provide grants in support of research projects and water conservation programs supporting the Sustainable Development Principles of **Research and Innovation**, and **Efficient Use of Resources**.

2. Activities of the Department that incorporate or apply Sustainable Development Principles and Guidelines.

SUSTAINABLE DEVELOPMENT PRINCIPLES:

1. **Integration of Environmental and Economic Decisions:**
   - **Economic decisions should adequately reflect environmental, human health and social effects.**
   - **Environmental and health initiatives should adequately take into account economic, human health and social consequences.**

Water Stewardship staff reviewed proposed licences, permits and development plans under the Environment Act, Municipal and Planning District Development Plans and amendments, and Municipal subdivisions to ensure the integrity and sustainablility of Manitoba's water resources and to ensure Manitobans and their investments are protected from water related hazards.

2. **Stewardship:**
   - **Water and fish resources should be managed for the equal benefit of present and future generations.**
   - **Manitobans are caretakers of our water and fish resources for the benefit of present and future generations.**

3. **Shared Responsibility and Understanding:**
   - **Manitobans should acknowledge responsibility for sustaining water and fish resources with each being accountable for decisions and actions in a spirit of partnership and cooperation.**
   - **Manitobans share a common economic, physical and social environment.**
   - **Manitobans should understand and respect differing economic and social views, values, traditions and aspirations.**
   - **Manitobans should consider the aspirations, needs and views of the people of the variouis geographical regions and ethnic groups in Manitoba, including aboriginal peoples, to facilitate equitable management of Manitoba's common resources.**

Water Stewardship:

- Continued to work with various stakeholders in the establishment of basin, watershed and aquifer management plans.
- Provided administrative assistance to several management advisory boards including the Winkler and Oak Lake Management Advisory Boards. The department relies on water level and streamflow data collection under the Canada-Manitoba Hydrometric Agreement for operation of water control works, flood forecasting and water management investigations and hydrologic studies.
- Supported and facilitated the work of the Lake Winnipeg Stewardship Board and the Lake Winnipegosis Stewardship Board
- Worked with First Nations and other stakeholders to develop fisheries management approaches that accommodate constitutional obligations and other stakeholder interests.
- Worked with stakeholders in Dauphin Lake fishery, to negotiate an agreement and co-management plan governing harvest of walleye, and continued to develop a management approach with Regional staff and Sagkeeng First Nation to address shared fisheries issues.

A working group was also formed with Indian and Northern Affairs Canada's Regional Economic Development program to discuss and coordinate fisheries issues of mutual interest.

Conservation District Secretariat Staff worked with sixteen Conservation Districts in the development and delivery of water and soil conservation programs and projects.

4. Prevention:

- **Manitobans should anticipate, and prevent or mitigate, significant adverse economic, environmental, human health and social effects of decisions and actions, having particular careful regard to decisions whose impacts are not entirely certain but which, on reasonable and well-informed grounds, appear to pose serious threats to the economy, the environment, human health and social well-being.**

The Red River Floodway Act was proclaimed initiating the expansion of the Red River Floodway to provide protection to Winnipeg from a 1 in 700 year flood event.

Water Stewardship continued to work toward protection of endangered aquatic species in Manitoba by working with the Federally appointed Committee on the Status of Endangered Wildlife in Canada (COSEWIC).

5. Conservation and Enhancement:

- **Maintain the ecological processes, biological diversity and life-support systems of the environment.**
- **Harvest renewable resources on a sustainable yield basis.**
- **Make wise and efficient use of renewable and non-renewable resources.**
- **Enhance the long-term productive capability, quality and capacity of natural ecosystems.**

In annually permitting and licencing water use and fish harvest the Department ensures that the sustainablility of those resources is not compromised.

The Fisheries Enhancement Initiative funded 277 projects directed at enhancing fish populations and their habitat as well as funding educational opportunities.

6. Rehabilitation and Reclamation:

- **Endeavour to repair damage to or degradation of the environment.**
- **Consider the need for rehabilitation and reclamation in future decisions and actions.**

Water Stewardship continued to provide co-ordination and planning assistance for a number of watershed/stream restoration projects in Manitoba. An integrated planning approach joins local stakeholder groups and agencies in restoring the health and functions of watersheds. Watershed initiatives are continuing on the Brokenhead, Valley, Black, Seine and Vermilion rivers, and selective tributaries on the west side of Lake Manitoba (Narrows area). New planning initiatives are being implemented on the La Salle River and Rat River.

7. Global Responsibility:

- **Manitobans should think globally when acting locally, recognizing that there is economic, ecological and social interdependence among provinces and nations, and working cooperatively, within Canada and internationally, to integrate economic, environmental,** human health and social factors in decision-making while developing comprehensive and equitable solutions to problems

Water Stewardship continued to support the Red River Basin Commission dedicated to the environmental, economic and social sustainablility of the Red River Valley.

Water Stewardship participated on a number of inter-provincial and international boards and committees directed at the sustainable management of shared waters within the Hudson Bay Drainage Basin,

including the Prairie Provinces Water Board, the Red River Basin Board and the Lake of the Woods Control Board.

SUSTAINABLE DEVELOPMENT GUIDELINES

1. Efficient Uses of Resources

- **Encouraging and facilitating development and application of systems for proper resource pricing, demand management and resource allocation together with incentives to encourage efficient use of resources.**
- **Employing full-cost accounting to provide better information for decision makers.**

Water Stewardship participated on a sub committee of the Canadian Council of Ministers of the Environment on Economic Instruments and Demand Side Management to support the efficient use of water.

2. Public Participation:

- **Establishing forums which encourage and provide opportunity for consultation and meaningful participation in decision making processes by Manitobans.**
- **Endeavouring to provide due process, prior notification and appropriate and timely redress for those adversely affected by decisions and actions**
- **Striving to achieve consensus amongst citizens with regard to decisions affecting them.**

Under the Red River Floodway Act, Manitoba is committed to fully compensate eligible persons for property and economic damage caused by the operation of the Red River Floodway in the spring.

3. Access to Information:

- **Encouraging and facilitating the improvement and refinement of economic, environmental, human health and social information**
- **Promoting the opportunity for equal and timely access to information by all Manitobans.**

Water Stewardship provides Information covering all aspects of the water resources to the public through the Water Stewardship website. Specific information is provided through open houses and public meetings.

Water Stewardship staff continued to participate in *Manitoba Envirothon* by co-chairing the test-writing committee, preparing questions, and assisting in the field day and oral components. *Envirothon* is an annual Olympic-style academic and environmental program. High school students (Senior I to IV) are tested in four discipline areas (aquatics, forestry, soils, and wildlife) and an annual theme.

Water Stewardship developed a Sustainable Development Website to integrate sustainable development concepts into the new Kindergarten-Senior IV Science: Manitoba Curriculum Framework of Outcomes. The site is a Manitoba first in integrating fisheries information into science curriculum via the Internet.

Whiteshell Fish Hatchery Visitor Centre gave tours to 3,905 people from June to the September long weekend. Interpretative exhibits include information on species reared at the hatchery, life stages of fish, how water is used, history of the hatchery, aquatic invasive species, and ecosystem interaction.

4. Integrated Decision Making and Planning:

- **Encouraging and facilitating decision making and planning processes that are efficient, timely, accountable and cross-sectoral and which incorporate an inter-generational perspective of future needs and consequences.**

Water Stewardship continued to develop the template and model for Integrated Water Planning and Management in the Province. This approach will ensure the integration decision making and management of land, water and related resources.

5. Waste Minimization and Substitution:

- **Encouraging and promoting the development and use of substitutes for scarce resources where such substitutes are both environmentally sound and economically viable.**
- **Reducing, reusing, recycling and recovering the products of society.**

6. Research and Innovation:

- **Means encouraging and assisting the researching, development, application and sharing of knowledge and technologies which further our economic, environmental, human health and social well-being.**

Water Stewardship continued to support the Lake Winnipeg Research Consortium through grants and in-kind contributions.

Administration and Finance

The Administration and Finance Division provides executive management of programs and management services, including financial, human resource, computer, and administrative support.

Minister's Salary

The Minister's salary provides the Minister with additional compensation to which an individual appointed to Executive Council is entitled.

Table AF.1

25.1(a) Minister's Salary

Expenditures by Sub-appropriation	Actual 2004/05	Estimate 2004/05		Variance Over/(Under)	Expl. No.
	$	FTE	$		
Total Salaries and Employee Benefits	29.0	1.00	29.4	(0.4)	

Executive Support

This area comprises support staff in the offices of the Minister and Deputy Minister of Manitoba Water Stewardship.

The purpose of Executive Support is to develop, implement and oversee policies and programs which are designed to attain, over the long term, the goals set out in the Department's role and mission statement. Additionally this unit advises the Minister on matters relating to the department, provides policy direction for departmental programs, co-ordinates departmental communications activities and initiatives, and provides administrative support for the offices of the Minister and Deputy Minister.

Table AF.2

25.1(b) Executive Support

Expenditures by Sub-appropriation	Actual 2004/05	Estimate 2004/05		Variance Over/(Under)	Expl. No.
	$	FTE	$		
Total Salaries and Employee Benefits	488.4	8.00	471.0	17.4	
Total Other Expenditures	148.4		195.0	(46.6)	

Administrative and Financial Services

Administration and Financial Services are corporate services shared with the Department of Conservation including administrative, financial, workplace safety and health, equipment warehouse, library and public information services. Information Technology Service are also shared with the Department of Conservation and Human Resource services are provided through a service shared with other departments.

Administrative services include: fleet vehicle coordination; office accommodation and parking administration; records management; and coordination of departmental efforts at French language services and compliance with the Freedom of Information and Protection of Privacy Act.

Financial services include: processing of revenue and expenditures in accordance with legislative, government and departmental requirements; preparing financial forecasts and budgetary estimates; asset management; and overall comptrollership support.

Library services are provided with the assistance of Environment Canada to support staff from that organization, Manitoba Conservation, Water Stewardship and the Canadian Council of Ministers of the Environment. Interlibrary loans are coordinated with educational institutions in Manitoba and other libraries and current information on topics within the mandate of these organizations are made available to staff and the public.

The Public Information section is responsible for providing information to the public regarding the numerous programs delivered by the Departments of Conservation and Water Stewardship. This service is provided in person, by telephone, Internet and mail. The section responded to the following requests for information and assistance:

- 43,450 direct telephone requests to the Information Officers
- 44,400 calls were received by the automated Public Information Line of which 8,937 where handled directly by the line.
- 72,639 in person requests
- 5,308 requests through the Internet
- 6,308 information packages mailed.

Table AF.3

25.1(c) Administrative and Financial Services

Expenditures by Sub-appropriation	Actual 2004/05	Estimate 2004/05		Variance Over/(Under)	Expl. No.
	$	FTE	$		
Salaries and Employee Benefits	256.7	4.00	272.3	11.3	
Other Expenditures	24.9		12.0	12.9	

Information Technology Services

This Branch provides internal information technology service and expertise, including systems analysis, design, implementation, corporate database management, and development and management of a yearly department-wide information technology systems plan.

Major activities

- A new fisheries management system software application to support commercial fisheries management in the Interlake Regional office was completed and deployed to streamline the issuing of licenses, maintenance of catch records, and reconciliation with the Fresh Water Fish Marketing Board data.
- The ITS Branch continued its work on the migration of many application and data base servers to up-graded architectures of software and hardware to comply to the new server operating system standards.
- The ITS Branch conducted software application testing and developed migration strategies to refresh over 700 desktop/laptop computers within the Conservation and Water Stewardship departments. This includes the commencing of testing and certification of over 600 software applications of which over 40 were custom packaged for multiple user distribution.

Table AF.4

25.1(d) Information Technology Services

Expenditures by Sub-appropriation	Actual 2004/05	Estimate 2004/05		Variance Over/(Under)	Expl. No.
	$	FTE	$		
Salaries and Employee Benefits	292.1	4.00	307.5	15.4	
Other Expenditures	16.0		16.0	0.0	

Water Management

Water resources continue to be managed to provide present and future generations with a healthy environment and an abundance of diverse natural resources. Water resource management is achieved though ensuring the sustainability of water resources, protecting the integrity of the environment and conserving bio-diversity, minimizing the effects of natural disasters; while optimizing opportunities for sustainable economic benefits and recreation.

Administration

Staff ensures sustainable development, allocation and conservation of water resources by adhering to policy and procedures, controlling funding, negotiating and administering contracts and monitoring efficiency and effectiveness of expenditures.

Table WM.1

25.2(a) Administration

Expenditures by Sub-appropriation	Actual 2004/05 $	Estimate 2004/05 FTE	Estimate 2004/05 $	Variance Over/(Under)	Expl. No.
Total Salaries and Employee Benefits	349.7	8.00	303.9	45.8	
Other Expenditures	1,744.4		2,117.5	(373.1)	1
Grant Assistance	13.5		25.0	(11.5)	
Total Other Expenditures	2,107.6		2,446.4	(338.8)	

1. Lower than anticipated operating expenditures related to timing of implementation of *The Water Protection Act*.

Water Licensing

The core function of the Water Licensing Branch is to safely allocate groundwater and surface water for beneficial use. Sustainable allocation of the resource has always been a key mandate of the Branch. Water budgets have been established for major water courses and several of the major and minor aquifers. Local area impact assessments are done for all groundwater sourced projects. A hydrological yield analysis is done for all surface projects for watercourses where water supply budgets are not available. Due to these administrative measures, some 74 groundwater applications (irrigation projects) are on permanent hold on the Assiniboine Delta Aquifer (ADA), as these projects are located within ADA sub-basins that have their assumed sustainable yields fully allocated.

In the summer of 2004, a database to input water use records from licensed irrigators and municipalities was developed. Through this initiative, many irrigation projects were identified as being dormant. As a result through this and other measures, the Branch was able to close a large number of files involving expired licenses and projects that were under application.

Good progress was made near the end of the fiscal year towards the completion of the licensing of a number of major municipal, industrial and irrigation projects. Also, in the latter half of the year, significant numbers of municipal licenses were issued.

The Wuskwatim Generation and Transmission Line projects entered their final licensing stages by the end of the fiscal year. The Clean Environment Commission issued its final report on the projects in September, 2004. Water Power Licensing staff were heavily engaged in the Crown consultations with Manitoba First Nations and Northern Affairs Communities concerning these projects.

Table WM.2

Water Use Regulation Licensing

Applications received for licenses	Surface Water	Groundwater
Applications for renewal of licenses	5	33
Applications for new licenses	22	54
Total applications received	27	87

Licenses issued by type	Surface Water	Groundwater
Municipal	1	3
Agricultural	1	39
Industrial	0	2
Irrigation	10	5
Other purposes (including heating and cooling)	0	4
Total licenses issued	12	53

Other licensing activities completed	Surface Water	Groundwater
Application (project) assessment completed	44	N/A
Development/exploration permit issued	7	11
Authorization for temporary water use issued	9	N/A
Licenses/applications reviewed and file closed	111	36
Total other licensing activities completed	171	N/A

Water Use Revenue	
License (application) fees	$5,700.00
Industrial water subtraction charges	$81,673.03
Total	$87,373.03

Water Power Regulation and Crown Land Development Review

Recommendations were provided regarding 120 proposals for use and development of 180 parcels of Crown land within Water Power License Areas and Water Power Reserve Areas.

Table WM.3

Water Power Revenue

Utility	Land Rentals	Water Power Rentals	Megawatt-Hours Production
Manitoba Hydro	$727,698.62	$103,985,504.54	131,124,066

Table WM.4

25.2(b) Water Licensing

Expenditures by Sub-appropriation	Actual 2004/05 $	FTE	Estimate 2004/05	Variance Over/(Under)	Expl. No.
Total Salaries and Employee Benefits	876.7	17.00	807.3	69.4	
Total Other Expenditures	33.3		33.2	0.1	

Water Planning and Development

The Water Planning and Development Section conducts stakeholder-based basin, watershed and aquifer management planning. Investigations were undertaken, reports prepared and presentations made to enhance awareness and to respond to concerns.

Pembina River Basin Management Plan

Technical support was provided to the Pembina River Basin advisory board towards the development of a water management plan.

Winkler Aquifer Management Plan

Planning and administrative assistance was provided to the Winkler Aquifer Management Advisory Board to facilitate implementation of the management plan.

Oak Lake Aquifer Management Plan

Planning and administrative assistance was provided to the Oak Lake Aquifer Management Advisory Board to facilitate implementation by its four action groups.

Swan Lake Basin Management Plan

Agreement was reached with Manitoba and Saskatchewan stakeholders on the final basin management plan. Membership was determined for the inter-provincial management advisory board and for working groups to implement the plan.

Assiniboine Delta Aquifer Management Plan

Public input was obtained on a draft aquifer management plan via surveys, open houses and public meetings. Agreement was reached with area stakeholders on the final aquifer management plan. Membership was determined for an aquifer management advisory board and a set of working groups to implement the plan.

Stephenfield Lake Watershed Management Plan

Public input was obtained on a draft aquifer management plan via surveys, open houses and public meetings. Work was continued to incorporate public input into a final management plan.

Red River Basin Commission

Planning assistance was provided to the Commission's communications committee.

Tri-Lakes

Technical support was provided to the Tri-Lake (Pelican, Rock and Swan) Development Corporation, for water projects to enhance recreational opportunities on Rock Lake and Swan Lake.

Legislation and Policy

To ensure sustainable development of water resources, legislation, regulations, policy and programs were reviewed.

The Manitoba Floodway Authority Act was proclaimed. It will establish a separate, independent and accountable authority to complete the expansion of the Red River Floodway.

The Red River Floodway Act was drafted along with supporting regulations. This Act will provide a legislative right to compensation for Manitobans who experience loss or damage from artificial flooding caused by Red River Floodway operation during a spring flood.

The Water Protection Act was tabled and reached second reading. It will establish new standards and targets for water quality.

The Drinking Water Safety Act regulations are being drafted to support the Act.

Table WM.5

25.2(c) Water Planning and Development

Expenditures by Sub-appropriation	Actual 2004/05		Estimate 2004/05	Variance Over/(Under)	Expl. No.
	$	FTE	$		
Total Salaries and Employee Benefits	1,109.6	18.00	1,156.3	(46.7)	
Total Other Expenditures	83.7		72.7	11.0	

Surface Water Management

Level and stream flow forecasts and status reports on hydrologic conditions of rivers, lakes and reservoirs, were provided, with emphasis on operation of control works and flood protection. Planning and engineering studies were undertaken for water use, allocation and licensing, public information, and multi-disciplinary resource management. Operation of dams was coordinated for water supply, conservation, flood control, fish and wildlife habitat, and recreation. Specialized hydrologic analysis, advice and information were provided.

Hydrologic Forecasting and Reporting

Spring runoff in 2004 was generally below average in western Manitoba and above average in eastern Manitoba and the Interlake. It appeared that spring flooding would be avoided but a record late winter rainstorm brought 50-70 mm of rain to much of southern Manitoba east of PTH 34 on March 26-28. This produced widespread flash flooding in the Red River Valley and adjoining areas of southeastern Manitoba and the Interlake due to the intense rain falling on frozen ground. Many municipalities declared a state of emergency. It also raised levels of the Red River and the lower Assiniboine River to bank full conditions and contributed to serious ice jam flooding from Selkirk to Breezy Point. Manitoba Water Stewardship had issued a flash flood watch two days prior to the storm. The extent and severity of flooding turned out to be very much as predicted.

Heavy rain and snow during May resulted in on-farm flooding in the Red River Valley and east to Ontario. The Roseau River rose to floods stage. A heavy rainstorm in late May resulted in the Red River rising to near bank full levels in June and also produced some flooding in the Turtle and Whitemud River watersheds. Heavy rain in May and June also caused some flooding on the Souris River in the Coulter area. A 60-80 mm rainstorm in southeastern Manitoba August 6-9 produced some flooding on the Rat River and Whitemouth River as well as in the Dauphin area. A 75 mm downpour just northwest of Winnipeg on August 23 produced flooding on Omands Creek. Heavy rain in the U.S. portion of the Red River watershed in late October, 2004 produced the second highest November flows on record for the Red River in Manitoba and left the Red River watershed in a saturated state as winter approached. Reports and forecasts were issued for these unusual rainfall events.

Daily sheets showing river data and forecasts were prepared and distributed to landowners along main river channels, to water managers, government officials and departmental managers during periods of high water. Such reports were distributed for the Red River from April 1-19, May 12-July 7 and November 1-15; for the Assiniboine River from April 1-19; the Roseau River from May 12-June 14 and the Icelandic and Fisher Rivers from March 30-April 13. Special reports for the City of Winnipeg were prepared from March 30-April 8. These daily reports were posted on the Water Stewardship web site.

A special operation of the Red River Floodway was conducted from June 11-30, 2004 to lower river levels in the City of Winnipeg and reduce the chance of sewer backup in the event of heavy rain over the City. River level forecasts and probabilities of damaging rains over the City produced a recommended operation. In conjunction with this special operation, a study was undertaken to develop summer operation rules for the Red River Floodway. Rainstorms over the City were closely examined for the periods of higher river levels in the City from 1948 to 2004. Floodway operations were simulated for tentative operation rules and benefit/cost analyses were performed. The process was repeated until the most sensible operation rules were determined. The new summer rule was included in the formal operation rules for the Red River Floodway.

Water Supply Condition Reports were prepared in April, May, July and December showing conditions and forecasts for rivers, lakes, reservoirs, aquifers and on-farm water supplies. These were widely distributed via mail, fax and e-mail and were posted on the Water Branch web site. Additional lake reports and forecasts were prepared in July, August and September.

Spring flood outlooks for 2005 were prepared and widely distributed in January, February and March, 2005. Numerous briefings of the Inter-Agency Emergency Management Committee and the Central Task Team were conducted from January to March, 2005. Numerous media briefings were also conducted by the Senior Hydrologic Forecaster. Presentations were also made at Emergency Management sponsored workshops on flood preparedness conducted in Morris and St. Adolphe. Flood scenario information was provided to a mock flood exercise conducted by EMO in cooperation with municipalities, towns and cities in southern Manitoba.

Weekly reports on river flows, including tables, graphs and a narrative were prepared and widely distributed throughout the year. These were distributed by e-mail and posted on the Water Stewardship web site. Each week, flows for 22 stream locations were compared to lower decile, median and upper decile conditions for the past 30 years.

A total of 17 storm precipitation maps, 12 monthly maps and 7 seasonal maps showing rainfall totals and percent of normal were prepared and distributed within the Department to Manitoba Hydro and to others via fax and the Water Stewardship web site.

Special forecasts for operation of controlled lakes and reservoirs were prepared throughout the year. The Shellmouth Reservoir Operation Liaison Committee was briefed on watershed conditions, forecasts and recommended operation scenarios 9 times by e-mail and twice by conference call. A total of 10 forecasts were prepared for Lake Manitoba and Lake St. Martin with recommendations of the operation of the Fairford Dam. Several forecasts were also prepared for Pelican Lake and Dauphin Lake to facilitate decisions on operation of control structures on these lakes. Inflow forecasts were prepared for some reservoirs which were in danger of running out of water during the spring of 2004, such as Vermilion, Irwin and Deloraine reservoirs. Advice was provided to regional staff regarding operation of Stephenfield Reservoir, Rivers Reservoir and dams in Manitoba's Whiteshell. Information on operation of dams in Saskatchewan and their effects on Manitoba waterways was provided to regional staff and to a local Committee on Pipestone Creek. Special reports and forecasts were also prepared to facilitate operation of major flood control works such as the Red River Floodway and the Portage Diversion.

Liaison was conducted with outside agencies such as the Saskatchewan Water Authority, U.S. National Weather Service, U.S. Fish and Wildlife Service, U.S. Geologic Survey, Manitoba Water Services Board, Water Survey of Canada, Meteorological Service of Canada and other agencies on a regular basis throughout the year. This was done to obtain or provide information on water conditions, forecasts and weather for use in water management in Manitoba and to coordinate surveys and forecast dates. Special liaison was conducted with the City of Winnipeg, City of Brandon and Manitoba Hydro to provide data and hydrologic forecasts and to obtain information on their needs.

The Hydrologic Forecast Centre responded to an estimated 500 requests for information on conditions of rivers, lakes, reservoirs, flooding, water statistics, hydrologic processes for wide ranging purposes. These requests came from businesses, rural municipalities, cities, Crown corporations, law enforcement agencies, consultants, scientists, universities, schools, and individuals.

Developmental work on improving hydrologic forecasting procedures continued with updating of stage-discharge curves, and updating and improvement of runoff forecasting procedures. Collection of hydrometeorological data in Sturgeon Creek watershed in support of modeling studies continued in collaboration with Red River College. The Forecast Centre participated in several workshops hosted by Environment Canada to discuss collaboration on hydrologic modeling using satellite data and computer generated spatially distributed data bases.

A study on the effect of climate change on Red River spring floods was completed and submitted for publication in the proceedings of the 2nd Conference of the Red River Basin Institute. The results were presented at a national workshop on climate change.

The Hydrologic Forecast Centre played a lead role in formulating a new committee to address the ice jam problem from Selkirk to Breezy Point. The Red River North Ice Mitigation Committee held several meetings and a workshop during the late winter, with representation from affected municipalities and towns. Several ice experts were brought in to the workshop to provide advice. Presentations were made by two experts and by the Hydrologic Forecast Centre of Manitoba Water Stewardship. A gauging network was established from Lockport to Breezy Point to measure river levels and ice conditions during the spring runoff. As a result of the Committee's activities, a floating backhoe (Amphibex) was brought in from Quebec to break ice in preparation for spring runoff.

The Forecast Centre engaged in other necessary activities such as planning and coordinating conventional and airborne snow surveys and soil moisture surveys, coordinating forecast dates with senior managers and outside agencies, preparing special reports on hydrologic conditions and forecasts for senior management and departmental executives, and preparing numerous news releases describing watershed conditions, forecasts, flood watches and warnings etc. Briefing notes were prepared on issues such as unusual flash floods, reservoir operations, climate change, summer floodway operation, legislator's forum etc.

Planning of data networks in support of hydrologic operations and forecasting continued. A new system of climate data acquisition and distribution was developed, with the Canadian Wheat Board playing the lead role. Planning for maintenance of a suitable network continued due to the cutbacks by the Meteorological Service of Canada. Various meetings were held with consultants marketing real time electronic climate stations. Ten Davis type stations were acquired with funds saved by the more efficient data acquisition and archiving. These will provide hourly climate data and rainfall at 5 minute intervals. Installation of these stations and of other standard rain gauges was planned for summer of 2005.

Hydrologic and Hydrometeorological Analysis

Design flows for highway crossings and waterways were computed for departmental regional offices, Manitoba Transportation and Government Services, consultants, and municipalities. Water availability analyses were performed and in stream flow requirements were determined for several small site-specific locations for inclusion in Water Rights Licenses. Historic water level and stream flow information was provided, as well as, water quality design flows. Hydrologic impact assessment studies were undertaken and the methodology for computing fish passage flows (3-day flows) for waterway openings were applied.

Continued support was provided to the Assiniboine River In stream Flow Working Group which is developing Instream Flow Needs recommendations for the Assiniboine River in Manitoba. The potential

hydrologic impact of operation of Shellmouth Dam for IFNs was modeled. The analogue routine incorporated in the Assiniboine River Water Management Model (ARWMM) to handle the proposed IFNs was documented. The hydrologic impacts of operation of Shellmouth Dam on the Assiniboine River's firm water supply, flooding below Shellmouth Dam and Lake of the Prairies water level regime was assessed and documented.

Hydrologic support was provided to Canada-Manitoba Shellmouth Dam Consolidation Agreement, which is examining the addition of spillway gates to the Shellmouth Dam on the Assiniboine River near Russell, Manitoba. Modifications were made to the ARWMM in order to evaluate different gate operations. Various operating scenarios of present and proposed gate operations were modeled to assess the impact on the Lake of the Prairies and the Assiniboine River water level and flow regimes. The historical changes in the modes of operation of Shellmouth Dam since it became operational in 1972 were documented. Technical reports prepared by KGS Group on the Present and Projected Water Demands on the Assiniboine River and Assessment of Downstream Agricultural Damages from the Operation of Shellmouth Reservoir were reviewed. Advice was provided on the determination of Shellmouth Dam spillway design flood.

The new procedure, Instream Flow Needs – Daily Flow Records, to assess the amount of water available for allocation to human use after accounting for in stream flow needs on small intermittent streams is being implemented. This new procedure was used to determine the allocable spring volumes on the Rossendale Drain, Little Souris River, Boggy Creek and Brookdale Drain. Water allocation limits on Boggy Creek and Brookdale Drain also considered water allocation limits on the Assiniboine DeltaAquifer (ADA) and Lake Irwin. A database of water allocation limits is being developed for all streams where recorded daily spring flows are available.

Other hydrologic support to activities of the branch/department included:

- Assiniboine Delta Aquifer Round Table meetings to develop action plans are continuing;
- Technical advice to the Stephenfield Lake Watershed Management Plan;
- Technical support in the development of the East Souris River Water Integrated Management Plan by providing a summary report of the watershed's hydrology;
- Examining various localized flooding problems/concerns (e.g. Smart back flood);
- Updating the Assiniboine River water supply budget for water rights allocation purposes;
- Reviewing Manitoba Hydro's compliance to the terms of the Interim Churchill River Diversion Licence for the operation of Missi Falls;
- Reviewing and providing advice for the Wuskwatim Water Power Licence;
- Developing software to assist in the operation of the Portage Diversion;
- Developing a Muskingum flooding routing Excel spreadsheet to assist in determining the impact of Shellmouth Dam operation on the Red River flows; and
- Providing expert witness on the Red River floodway operation at the CEC Floodway Expansion Hearings.

Surface Water Data Collection

The Water Science and Management Branch relies on water level and stream flow data collected under the Canada-Manitoba Hydrometric Agreement for operating water control works, flood forecasting, water allocation, water management investigations and hydrologic studies. Environment Canada and Manitoba Hydro operated 143 discharge and 62 water-level gauging stations under the agreement. Real-time hourly water level data was continuously retrieved at 192 sites in Manitoba and adjacent provinces and states for the purpose of flood forecasting and operation of water control structures. Staff participated on a standard National Hydrometric Program (NHP) pilot project team made up of representatives from Environment Canada (EC) and Manitoba Hydro to develop and implement a Quality Management System (QMS), based on the ISO 9001:2001 standard. The QMS pilot was developed and implemented in the Manitoba and Headquarters Regions of EC. A report describing the NHP QMS project history, system structure and implementation activities were prepared. The NHP covers all

aspects of the NHP from basic data production, through to determining client needs and satisfaction, to strategic direction setting and performance measurement.

To supplement the federal-provincial network, the province monitored levels at 136 gauging sites. At two sites, daily stream flow data was obtained during the open water period. At five sites digital water level recorders were installed. The number of federally and provincially operated hydrometric stations for each year since 1995-96 is shown below.

Table WM.6

Hydrometric Station Operation

	1995/ 1996	1996/ 1997	1997/ 1998	1998/ 1999	1999/ 2000	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005
Federal-Provincial Stations	227	227	174	179	179	188	196	206	205	205
Provincial Stations	123	123	135	129	126	117	110	135	137	136

Data for 72 provincial stations was forwarded to Environment Canada's database. Provincial and federal data were added to the provincial database.

Water Supply Management, Structure Operation and Allocation Planning

Reservoir levels and spring inflows were monitored to assess flooding and potential supply problems. Inspections were conducted at dams and reservoirs to evaluate performance. Stakeholder-supported operating plans, and plans for supply for municipal and industrial uses were carried out. Surface water supplies were sustainably managed through regional or provincial plans, strategies, and policies. Municipal use data was obtained and usage at about 100 communities was updated.

The Lake Manitoba Regulation Review Committee completed its work to determine the most acceptable range of regulation for Lake Manitoba and also to consider the best course of action for the water regime along the Fairford River, Lake Pineimuta, Lake St. Martin and the Dauphin River. The Committee released its final report for public distribution in January, 2004 and copies were made available at Rural Municipal offices. A second round of five open-house public meetings was held in February, 2004. The intent was to present the Committee's findings and recommendations and to obtain comment and feedback from stakeholders in light of prevailing record low water levels on Lake Manitoba. The Committee completed its summary report on this public consultation process in July, 2004. Feedback at the meetings was generally favourable and the Committee confirmed support for all their original recommendations.

Work continued on the Canada-Manitoba Shellmouth Dam Consolidation Agreement that will examine the addition of spillway gates to the Shellmouth Dam on the Assiniboine River near Russell, Manitoba. The spillway gates would provide enhanced water management capability on the reservoir through creation of an additional six feet of water storage capacity and would ensure additional water supply for irrigation expansion and other development opportunities downstream along the Assiniboine River. Work continued on preliminary engineering studies. Preliminary scoping of potential environmental issues related to the proposed spillway gates was completed and work began on preparation of an environmental assessment for upgrading the Shellmouth Dam.

Reservoir Regulation

All major reservoirs were filled to target levels in early April. Lake of the Prairies peaked at 428.76m in mid-June and receded to the summer target in early October. Lake Manitoba peaked at 247.44m in early July and remained within the desirable range for the remainder of the year. Dauphin Lake peaked in mid-June at 260.85m, 0.31m above the summer target level. Brereton Lake peaked at 316.28m in mid-April, which is 0.27m above target. Falcon Lake peaked at 325.24m in late September, or 0.57m above its summer target level. West Hawk Lake peaked at 333.21m in early June, which is 0.67m above summer target level. Stephenfield Lake and Lake Wahtopanah were filled as usual in early spring.

Flood Damage Reduction

During the spring runoff, the Red River Floodway was operated from April 1st to April 19th, with a peak discharge of approximately 16,300 cfs. The Red River Floodway Operation Advisory Board held a meeting on April 2nd to discuss the spring's Floodway operation and to review Floodway operation issues. The Portage Diversion was operated from April 2nd to April 11th, with a peak discharge of approximately 12,000 cfs. In late March of 2004 the Portage Diversion Liaison Committee met to discuss issues related to the operation of the Portage Diversion.

The MIKE-11 hydrodynamic model of the Red River Valley was used in conjunction with an engineering consultant's study of improved flood protection for Winnipeg. Improvements to the model were made as part of a Red River Basin Commission's initiative to develop a MIKE-11 model for the entire length of the Red River.

Hydraulic analysis were conducted on the Red River from Emerson to Lake Winnipeg, as part of a "Species-At-Risk" project initiated by the University of Manitoba, Department of Zoology. The objective was to produce detailed, up-to-date cross-section data of the river bottom for the Red River, which would be used along with other information to assess the potential for Lake Sturgeon fish habitat.

Table WM.7

25.2(d) Surface Water Management

Expenditures by Sub-appropriation	Actual 2004/05	Estimate 2004/05		Variance Over/(Under)	Expl. No.
	$	FTE	$		
Total Salaries and Employee Benefits	807.7	13.00	800.2	7.5	
Other Expenditures	181.0		219.1	(38.1)	
Canada-Manitoba Agreement for Water Quantity Surveys	587.0		587.0	0.0	
Total Other Expenditures	1,575.7		1,606.3	(30.6)	

Groundwater Management

The Groundwater Management Section's activities enhance our ability to monitor and manage provincial groundwater resources in a sustainable manner. Major activities include administration of *The Ground Water and Water Well Act;* collection and storage of information on occurrences of aquifers, quality of groundwater in them and their sustained yields; and compilation of this information in the form of maps, reports and raw data.

Water Management and Science staff continues to work with various stakeholders in the establishment of basin, watershed and aquifer management plans. Administrative assistance is provided to several management advisory boards including those developing plans for the Assiniboine Delta, Winkler and Oak Lake Aquifers. The branch relies on water level and stream flow data collected under the Canada-Manitoba Hydrometric Agreement for operating water control works, flood forecasting, water management investigations and hydrologic studies.

Groundwater Regulation, Monitoring and Data Compilation:

- Licences were provided to 32 water well drilling companies in Manitoba and Saskatchewan drillers operating in Manitoba. The Branch continued to liaise closely with the well drilling industry through attendance and presentations at meetings of the Water Well Association.
- Monitoring of water levels was continued within the provincial groundwater monitoring network which consists of approximately 530 dedicated wells. In addition, rainfall data was collected at 35 rain gauge sites. Thermal monitoring is continuing in areas of groundwater-based cooling systems. A regional snow survey was carried out in the late winter of 2005 to evaluate potential aquifer recharge conditions.
- Groundwater samples were collected and analysed from approximately 244 of the provincial monitoring wells to collect information on long-term groundwater quality changes. This included a major undertaking of sampling in areas of the Carbonate aquifer, the Assiniboine Delta aquifer, the Treherne Delta aquifer and the Sandilands region.
- Approximately seventeen hundred water well drillers' logs were submitted under terms of the Ground Water and Water Well Act. In addition, more than 100 reports were submitted for abandoned wells which had been sealed under various provincial and federal programs.
- The well drillers logs, water level and water quality information gathered from the observation well network as well as information gathered during site specific investigations was entered into provincial data bases. Licensed water well drillers and a number of consulting firms and private individuals were supplied with a copy of the complete water well records. Information from the provincial data bases was provided in response to several hundred written and telephone requests.

Detailed Aquifer Investigations:

- A program to gather additional information on the hydraulic properties of the Carbonate aquifer through pumping tests and geophysical logging was initiated. This information will be used in the development of a regional digital model of the aquifer which is expected to be undertaken in 2005/06.
- An evaluation of the water quality data base and monitoring network for the Winkler aquifer was undertaken in preparation for a sampling program in 2005/06. This work will re-evaluate the stability of the fresh water-saline water boundary in the aquifer.
- The Section cooperated with the Prairie Farm Rehabilitation Administration on a major groundwater compilation and sampling study in the southwest Souris area.

Rural Groundwater Quality Initiative

- Hydrogeological support was provided to the Office of Drinking Water on various water quality issues.
- Development of a GIS-based data base and map of municipal water supply wells was initiated in co-operation with the Office of Drinking Water.
- Sampling of provincial water quality was carried out on observation wells which were installed as part of the Manitoba Rural Groundwater Quality Initiative.
- Reviews were undertaken of numerous groundwater development projects.

Livestock Initiative

- Monitoring has continued at four study sites, two on shallow sand aquifers and two in glacial till environments, to examine possible groundwater quality impacts from the use of liquid hog manure as a crop fertilizer.

- A co-operative study with groups at the University of Manitoba was continued. The overall study will examine soil and water issues related to cattle production on pasture/forage fields fertilized with liquid hog manure.
- Monitoring has continued at the site of a ruptured liquid hog manure storage tank which spilled over a shallow sand aquifer near Macgregor.

Technical Support and Cooperation

- Technical input was provided to the aquifer management plans for the Assiniboine Delta aquifer, the Oak Lake aquifer and the Winkler aquifer. In addition, technical support was provided to assist in the development of a number of watershed plans including those for the East Souris River and Stephenfield Lake.
- Input to the Livestock and Environmental Licensing technical review processes has continued for all areas of the province.
- Technical support on groundwater issues was provided to other provincial departments.
- Technical input was provided in the preparation of a consumer's guide of drinking water information being prepared by the Office of Drinking Water.
- Technical support was provided to the public on a daily basis in dealing with groundwater and well problems.
- The compilation of an inventory of known wells within the city of Winnipeg was initiated. This will enable the identification of wells for sealing during property development.

Table WM.8

25.2(e) Groundwater Management

Expenditures by Sub-appropriation	Actual 2004/05	Estimate 2004/05		Variance Over/(Under)	Expl. No.
	$	FTE	$		
Total Salaries and Employee Benefits	842.3	16.00	959.9	(117.6)	1
Total Other Expenditures	341.2		351.2	(10.0)	

1. Higher than anticipated staff vacancies resulting in lower salaries and employee benefits costs.

Regional Water Resources

Interlake Region

There were 180 water rights license applications received and 68 drainage concerns or complaints investigated. There were 46 water rights licenses issued, and 17 letters of approval regarding drain clean-outs. Municipalities were assisted with water management projects. Monthly meetings were held with 5 water management associations (Fisher, Western Interlake, Northeast Interlake, Southeast Interlake and Northwest Interlake) to discuss drainage, licensing and proposed projects.

Provincial waterways (drains) were maintained and crossings repaired or replaced by staff or by tendered contracts. Dams were operated to regulate water levels within prescribe ranges. Control structures were operated on Fish Lake drain, Swan Lake drain, St. Laurent dam and Fairford River dam. Meetings were held with Peguis First Nation and Fisher River First Nation to discuss options to alleviate

flooding on First Nations land and a brushing program was initiated on the Fisher River. Rehabilitation of the Fairford Control Structure/Highway Bridge was started.

Western Region

Engineering staff completed maintenance on 405 miles of provincial waterways and maintained and operated 34 provincial dams, while assisting with regional water rights issues. Fisheries and Oceans Canada required documentation was provided prior to approval of maintenance works on waterways. Engineering staff also provided technical support to the Parks and Natural Areas Branch, Manitoba Conservation, in the design and tendering for construction of the water supply system for Stephenfield Park and various smaller sewer and water projects. Surveys were carried out in preparing cottage subdivisions. Surveys and designs were completed for four municipal crossings and six crossings for conservation districts. Engineering support was provided for a variety of projects for the conservation districts in the region.

Staff continued to undertake investigations and enforcement and licensing of drainage under *The Water Rights Act*. Staff continued to work with the Whitemud Watershed Conservation District, following a successful drainage licensing pilot project.

Between April 2004 and March 2005:

- 110 drainage license applications were received, of which 41 were in Whitemud Watershed Conservation District (WWCD).
- 92 licenses were issued, of which 28 were issued in the WWCD.
- Regional staff continued to action 146 drainage license applications, of which 46 were received in this fiscal year.
- 36 drainage complaints were received. Investigations of 77 complaints from prior fiscal years are ongoing.
- 2 emergency ministerial orders and 14 ministerial orders were issued for unlicensed drainage works.

Staff participated in watershed management and planning with other agencies and local stakeholders. Current watershed initiatives are ongoing in Swan Lake Basin, Oak Lake Aquifer, Turtle Mountain Conservation District and West Souris River Conservation District.

Red River and Eastern Regions

Within both regions, provincial waterways were maintained and crossings repaired or replaced by staff. Dams were operated to regulate water levels within the prescribed ranges. The Red River Floodway and Portage Diversion were operated to minimize spring flooding as required.

The 2004/05 phase of reconstruction of the South Buffalo Drain was competed at a cost of $1,450,000.

Approximately 75 drainage complaints were addressed with many being resolved and some remaining in process. One hundred and thirty one drainage license applications were received with 92 licenses issued.

Table WM.9

25.2(f) Regional Water Resources

Expenditures by Sub-appropriation	Actual 2004/05	Estimate 2004/05		Variance Over/(Under)	Expl. No.
	$	FTE	$		
Total Salaries and Employee Benefits	2,420.5	41.49	2,393.5	27.0	
Total Other Expenditures	586.3		586.4	(0.1)	

Waterway Maintenance

Regional engineering and branch staff performed waterway maintenance activities for three categories of water control infrastructure works namely: water allocation, flood-damage reduction and waterway drainage. Regional staff operated dams to control flows and reservoir levels as required. Flood damage reduction activities mitigated flood damages and maintained structures and equipment to ensure future use. Waterway drainage maintenance activities were related to provincial waterways and associated crossings, primarily for the benefit of the agricultural sector. In cooperation with Manitoba Intergovernmental Affairs and Trade, some additional critical waterway maintenance activities were performed to ensure waterway performance.

Branch activities, supported by waterway maintenance funding, comprise a broad range of activities, such as spring snow surveys, lake erosion protection studies, special studies for waterway maintenance and other water infrastructure projects, including developing provincial standards and monitoring safety of provincial dams. Costs of providing engineering data to government agencies, the public and the business sector are also accommodated within the waterway maintenance appropriation. Waterway maintenance funding also supported spring flood fighting costs.

Table WM.10

25.2(g) Waterway Maintenance

Expenditures by Sub-appropriation	Actual 2004/05	Estimate 2004/05		Variance Over/(Under)	Expl. No.
	$	FTE	$		
Total Other Expenditures	4,476.6		4,067.2	409.4	1

1. Over-expenditure due to flood fighting and restoration costs resulting from heavy rains.

Fisheries And Water Quality Services

Fisheries Branch ensures sustainable development of fisheries resources. Management programs are developed to provide greatest benefits to Manitobans, by maintaining or enhancing fish populations and habitat, monitoring harvest and habitat alterations, and allocating resources for best return. The Branch directs and reports on programs and budgets, legislation and policy, standards and guidelines, and co-ordination and monitoring activities. The Branch also administers the Northern Fishermen's Freight Assistance Program. Head Office and Regional Fisheries Managers report to the Fisheries Director responsible for operational decision-making and program delivery.

Water Stewardship continues to work with First Nations and other stakeholders to develop fisheries management approaches that accommodate constitutional obligations and other stakeholder interests. Staff worked with stakeholders in Dauphin Lake fishery, to negotiate an agreement and co-management plan governing harvest of walleye, and continued to develop a management approach with Sagkeeng First Nation to address fisheries issues. A working group was also formed with Indian and Northern Affairs Canada's Regional Economic Development program to discuss and coordinate actions to address fisheries issues of mutual interest.

Winnipeg's Urban Angling Partnership, comprising Mid-Canada Marine Dealers Association, Manitoba Wildlife Federation, Fish Futures Inc., *The Complete Angler*, City of Winnipeg, and Government of Manitoba, continue to offer a diverse group of angling programs. These programs provided the opportunity residents and visitors to participate in recreational angling including:

- Learn to Fish Clinics
- Winnipeg Fish Festival
- Youth Angling Camps
- Fish Winnipeg Media/Corporate Challenge (monies raised for youth angling programs)
- Urban Fishing Derby

Working in partnership with Manitoba Wildlife Federation, Manitoba Recreation Connections and Berkley Canada, Manitoba's Recreational Fishing League completed another successful year. The league is designed to provide Manitoba youth with an opportunity to enjoy a recreational angling experience and learn about the environment around them.

A Sustainable Development Website continued to integrate sustainable development concepts into the new Kindergarten- Senior IV *Science: Manitoba Curriculum Framework of Outcomes*. The site is a Manitoba first in integrating fisheries management information into a science curriculum via the Internet. The site was promoted at teacher workshops and conferences, including the Special Areas Group (Science) workshop. Work will continue with educators to develop exercises for Grades Senior III to Senior IV for implementation in the fall of 2005.

The Visitor Centre at the Whiteshell Fish Hatchery was operated for the fourth year. Park interpreters staffed the Centre and gave tours to 3,905 people from June to the September long weekend. The Centre provides a sheltered area to begin tours, with washrooms and drinking water. Interpretative exhibits include information on species reared at the hatchery, life stages of fish, how water is used, the history of the hatchery, aquatic invasive species, and ecosystem interaction.

2004 was the second year of a program that will help determine the contribution of hatchery reared walleye to the Lake Manitoba commercial fishery. 27.9 million fry were marked with oxytetracycline (OTC) at the Swan Creek Hatchery and distributed throughout the lake, bringing the total number to 49.4 million.

Fisheries Branch continued to participate in the sturgeon stocking program on the Nelson River in co-operation with the Nelson River Sturgeon Management Board and Manitoba Hydro. Eggs were collected from the Weir River on the lower Nelson River, with the assistance of Manitoba Hydro and North/South Consultants. The eggs were raised at the Grand Rapids Fish Hatchery, and the fingerlings were then moved to the Sturgeon Board's Jenpeg rear-out facility for stocking. The Jenpeg facility attracts a significant number of people who tour the facility

The sixteenth year of the Winnipeg River sturgeon monitoring and tagging program was completed this year. Numerous school groups and public individuals participated in the program as part of an on-going educational component. Additional assistance was provided to research scientists also involved in sturgeon research on the Winnipeg River.

The Branch continued to participate in the national Aquatic Invasive Species, Aquaculture and Recreational Fishing Task Groups and co-chair the national Freshwater Fish Strategy Task Group. These Groups, reporting to Canadian Council of Fisheries and Aquaculture Ministers, are developing co-ordinated action and implementation plans that involve stakeholders and maximize management efficiency and effectiveness.

Commercial fishing on Lake Winnipeg continued to produce large volumes of fish. Approximately 94% of the lake quota (6.4 million kgs) was harvested during the open water and winter fisheries. During 2004/05 fisheries, pickerel production (3.8 million kg) continues to be high in part due to strong year classes that are taking advantage of smelt as a food source and demonstrating high growth rates.

The Northern Fishermen's Freight Assistance (NFFA) program assists marginal commercial operations by partial subsidization of transporting certain species to Winnipeg. NFFA paid about $367,000.00 to 401 fishers for 2004 summer season. Payments to 37 fishers for winter season were about $33,000.

A Lake Winnipegosis Management Board has recently been formed and the Branch provides a high degree of support in the operation of this board. The Board was put together as a result of numerous recommendations by government and consultants. Work continued with the Lake Winnipegosis Management Board to develop a management plan for the lake. Round table meetings were held in communities around the lake in September 2004, which provided public input on key issues and priorities for a management plan.

Certain waters in Northern Manitoba have significant populations of rainbow smelt, which cannot legally be harvested and sold for bait. The Department retired bait allocations in these waters to prevent spread of smelt, especially to northern unimpacted waters where commercial fisheries that rely on whitefish would be severely impacted.

Administration

This section provides annual estimates, financial and personnel services, and administrative support to the Fisheries Division.

Table FI.1

25.3(a)1 Administration

Expenditures by Sub-appropriation	Actual 2004/05 $	Estimate 2004/05 FTE	Estimate 2004/05 $	Variance Over/(Under)	Expl. No.
Total Salaries and Employee Benefits	253.1	3.00	267.5	(14.4)	
Total Other Expenditures	916.6		384.2	532.4	1

1. Higher than anticipated legal costs primarily related to Devil's Lake.

Fish Culture

Fish stocking programs continue to create new self-sustaining fisheries, maintain and enhance fisheries where natural reproduction fails or winterkill occurs, and introduce species. Fish are produced at the Whiteshell and Grand Rapids Hatcheries - the latter co-funded by Manitoba Hydro - as well as a seasonal walleye hatchery located at Swan Creek near Lundar on Lake Manitoba.

In 2004, the Swan Creek Hatchery hatched 40.375 million walleye fry from eggs collected at two sites near Swan Creek Hatchery. 30.575 million fry were distributed to Central Region commercial fishing lakes and 0.7 million were distributed to four Central Region sport fishing lakes. The Western Region received 5.0 million fry which were distributed to eight sport fishing lakes as well as Lake Winnipegosis (3.0 million). Fourteen sport fishing lakes in the Southwestern Region received 4.1 million fry. In all, walleye fry from Swan Creek Hatchery were stocked into 29 water bodies. The second year of the oxytetracycline marking of walleye fry at Swan Creek Hatchery marked 27.9 million fry that were stocked as part of an effort to determine the effectiveness of the stocking program in Lake Manitoba.

The Whiteshell Hatchery stocked walleye fry into 14 sport fishing lakes as well as one rearing pond in the East/Southeast Region. St. Malo Lake in the Red River Region was also stocked with fry from the Whiteshell. Eleven sport fishing lakes in the Southwestern Region were also stocked from the Whiteshell Hatchery.

Grand Rapids Hatchery operated a spawn camp at Basket Creek on the north end of Lake Manitoba. This year, due to the unfavourable conditions at Basket Creek, no walleye eggs were collected. All of the walleye eggs incubated at the Grand Rapids Hatchery in 2004 were collected in one day from brood fish at the Swan Creek Hatchery nets. From these eggs, 200,000 green eggs, one million eyed eggs, and 9.7 million fry were supplied for the North/South Consultants' Manitoba Hydro spillway channel walleye spawning experiment at Grand Rapids in the Saskatchewan River. Three million fry were stocked in the Western Region (2.0 million to Lake Winnipegosis and 1.0 million to three sport fishing lakes). 2.4 million fry were returned to Lake Manitoba as replacement fry.

The section continued to assist, in a reduced capacity, the volunteer hatcheries throughout the province. Volunteer hatcheries operated at Lonely Lake Drain, Whitemud River near Westbourne, Dawson Bay as well as Dauphin River. Some of the groups reported producing fry but numbers of fry

produced from these operations remains undetermined, as there is no monitoring of the production or stocking taking place at these facilities.

Whitefish fry (10.3 million) hatched from eggs taken at Lake St. Martin in October 2002 were stocked into Cross Lake and 2.4 million were stocked into Lake St. Martin as replacement fry.

Eggs from a female sturgeon at the Weir River, northeast of Sundance on the Nelson River, were obtained with the assistance of North/South Consultants, who had a research camp set up at that location. The eggs taken from this fish subsequently produced 1,400 fingerlings. Most (1,300) were stocked back into the Nelson River (including fingerlings used at Jenpeg Generation Station for final grow-out by individuals from Cross Lake) as well as 100 that were kept at the hatchery for educational institutions in the Northwest and Northeast regions.

Trout species were produced at both Whiteshell and Grand Rapids hatcheries for distribution into sport fishing lakes throughout the province.

Species raised at Grand Rapids include rainbow, brook and lake trout, as well as the hybrid splake (brook x lake trout). The Whiteshell Hatchery produces rainbow, brown and brook trout as well as the hybrid tiger trout (rainbow x brook) and arctic char. The Section continued assisting volunteer organizations to enhance local stocks.

Table FI.2
Distribution to Sport Fishing Waters from Fish Hatcheries

Species	Fry and Eggs	Fish < 18cm long	Fish ≥ 18cm long
Brook x Brown Hybrid	0	0	12,425
Brook x Lake Hybrid	0	33,333	0
Brook Trout	0	47,500	7,500
Lake Trout	0	172,000	0
Brown Trout	0	15,000	7,986
Rainbow Trout	0	248,700	56,000
Arctic Char	0	0	2,800
Walleye	22,300,000	0	0

(Excludes stocking to water bodies with both sport and commercial fishing, such as Lake Manitoba.)

Table FI.3
25.3(b) Fish Culture

Expenditures by Sub-appropriation	Actual 2004/05	Estimate 2004/05		Variance Over/(Under)	Expl. No.
	$	FTE	$		
Total Salaries and Employee Benefits	621.7	14.19	664.7	(43.0)	
Total Other Expenditures	201.5		202.6	(1.1)	

Aquatic Ecosystem Management

The Section supports conservation, evaluation, restoration, and enhancement of fish and fish habitat to achieve a net gain in healthy, productive fish habitats and stocks.

The Section reviews proposed developments that may affect surface waters, fish, and habitat, and recommends measures for mitigating or avoiding adverse impacts. 38 *Proposals* were reviewed under *The Environment Act*, including water-treatment plants, wastewater treatment lagoons, and land disposal of sludge, mine developments or closures, food-processing plants, crop protection warehouses, rural water pipelines, oil and gas pipelines, winter road relocation, industrial facilities and forest company operating plans. In addition three draft *Licenses and* one *Environmental Impact Statement* was reviewed. Another 287 proposals not requiring review under *The Environment Act* but could have implications to aquatic ecosystems were reviewed. These included sale/lease/permit applications, municipal development plans/amendments/zoning bylaws, pre-licensing environmental screenings and others.

The Section participated as a member of the Technical Advisory Panel for *Environmental Effects Monitoring* (EEM) of two pulp and paper mills, as well as 10 mines in Manitoba. EEM is required by regulation under The *Fisheries Act of Canada.*

The Section continued to participate as a member of the Forest Practices Committee (FPC). This multi-disciplinary group reviews and updates guidelines for industry related activities. The FPC is currently working on riparian guidelines.

In continuing to address concerns with introductions of aquatic organisms, the Committee on Introductions and Transfers of Aquatic Organisms in Manitoba, chaired by the Section, completed the final draft of the list of prohibited species to be used as Schedule IX of the *Manitoba Fishery Regulations* made under The *Fisheries Act of Canada*. A supplemental document explaining the invasive risks posed by the prohibited species along with potential pathways for entry into Manitoba waters was also drafted. The committee also reviewed the Valley City National Fish Hatchery proposal to rear pallid sturgeon and topeka shiners. It was recommended to the USFWS that this proposal be subject to a full Environmental Impact Statement as required by the National Environmental Policy. Three requests to import red claw crayfish were also reviewed. Proponents were asked to provide a risk assessment as described in the National Code on Introductions and Transfers. The Section also continued to represent Manitoba on the Task Group on Aquatic Invasive Species created by the Canadian Council of Fisheries and Aquaculture Ministers. This Task Group is charged with developing a national action and implementation plan to address the threat of vectors not covered under the *Code,* including the aquarium and aqua-garden trade, live bait, live aquatic food, recreational boating, shipping, and unauthorized introductions and transfers.

The Section continued to work toward protection of endangered aquatic species in Manitoba by working with the Federally appointed Committee On the Status of Endangered Wildlife in Canada (COSEWIC). In the past year, eight species status reports were reviewed including arctic char and lake sturgeon that exist in Manitoba. The committee determined these two reports were lacking sufficient data for proper assessment and recommended they be re-drafted and reviewed the following year.

As development continues along the Assiniboine River, establishing in stream flow reservations to protect fish, fish habitat and ecosystem functions and processes is a high priority. A committee, led by Section staff, from Manitoba Water Stewardship, Manitoba Conservation, Fisheries and Oceans Canada, and University of Manitoba continued work to determine the magnitude, frequency, timing and duration of water required to meet the needs of the aquatic ecosystem and the organisms that depend on it. The Committee synthesized the biological, connectivity, geomorphological and hydrological data and developed in stream flow recommendations for average, low and intermediate flow years at sites near

Headingley, Highway 34, Brandon and St. Lazare. The analysis is complete and the report is being drafted.

The Section leads a committee developing drain maintenance guidelines to meet the requirements of *The Fisheries Act* of Canada. There is an opportunity to provide a common, clear understanding of habitat protection requirements (technical and process) for waterway maintenance, construction and reconstruction. These guidelines will ensure all resource interests are accommodated during all phases of waterway maintenance projects where Manitoba, Rural Municipalities, or Conservation Districts are proponents. A committee of Manitoba Water Stewardship, Manitoba Conservation, and Fisheries and Oceans Canada staff have created a comprehensive, but simple, process to guide all parties through pre-planning, planning, fieldwork and follow-up phases of waterway maintenance. A Stakeholder Advisory Panel has reviewed the proposed guidelines and process, and provided comments. The Committee is incorporating those suggestions into the guidelines.

The Section continues to provide co-ordination and planning assistance for a number of watershed/stream restoration projects in Manitoba. An integrated planning approach joins local stakeholder groups and agencies in restoring the health and functions of watersheds. Project work includes in-depth aerial and ground-truthing surveys to determine land use practises and natural functions impacting watershed health. Specific project sites are also identified which require mitigation work to protect and enhance valuable watershed components such as water quality, and fish and wildlife habitat. The implementation and monitoring of site-specific project work are the next phases that are addressed in these long-term watershed restoration programs. Watershed initiatives are continuing on the Brokenhead, Valley, Black, Seine and Vermilion rivers, and selective tributaries on the west side of Lake Manitoba (Narrows area). New planning initiatives are being implemented on the La Salle and Rat rivers. The section also provided representation on the Provincial Water Strategy Watershed Planning Committee.

Staff participated in *Manitoba Envirothon* by co-chairing the test-writing committee, preparing questions, and assisting in the field day and oral components. *Envirothon* is an annual Olympic-style academic and environmental program. High school students (Senior I to IV) are tested in four discipline areas (aquatics, forestry, soils, and wildlife) and an annual theme (this year: Natural Resources in an Urban Environment). This year the competition was held in Brandon with 27 Manitoba school teams entered. The winning team represented Manitoba at the *National Canon Envirothon* in West Virginia.

Table FI.4

25.3(c) Aquatic Ecosystem Management

Expenditures by Sub-appropriation	Actual 2004/05		Estimate 2004/05	Variance Over/(Under)	Expl. No.
	$	FTE	$		
Total Salaries and Employee Benefits	387.7	7.00	400.3	(12.6)	
Total Other Expenditures	24.5		28.3	(3.8)	

Sport and Commercial Fishing Management

The Section develops, administers, and evaluates management programs and policies for sport, commercial, and domestic use, including commercial bait fishing and trout farming. It also manages the Northern Fishermen's Freight Assistance Program, distribution and reconciliation of commercial fishing licences, and fish production information.

The Ministerial Fish Transportation Loadslip Regulation under the Provincial Fisheries Act (Chapter F90) was amended to facilitate more effective tracking of Manitoba's valuable fisheries resources and to help ensure that fish purchased by fish agents is from a legal, licensed source. This has become increasingly important in view of the illegal sales occurring from unlicensed fishing. Previously, a person did not need a loadslip to transport fish from a different landing point than what was identified on his commercial fishing license as long as they were transporting the fish to the Freshwater Fish Marketing plant or personal packing shed that was identified on the license. The landing point is listed on the front of the commercial fishing license, however, it is not included as a condition of the license, and therefore charges for delivering from a different landing site could not be laid. This is reinforced in that on the license it specifically notes that a loadslip is required if you are transporting fish to a different Freshwater Fish Marketing agency or private packing shed than what is specified on the license. There is nothing on the license such as this for a different landing spot.

A standard guideline for commercial net fishing licence suspensions under the Minister's longstanding authority to suspend licences was developed by Fisheries Branch and Regional Operations to assist in regulation enforcement. The guideline was developed to ensure that Manitoba's longstanding authority to suspend and cancel licences is applied fairly and consistently to commercial net fisheries across the Province.

A Fish Hawker's Fact Sheet for a person selling fish in Manitoba door to door or from a mobile location was developed and circulated to commercial fishers. Fish are classified as a potentially hazardous food under The Food and Food Handling Establishments Regulation under *The Public Health Act (Manitoba)* and as such **all** persons contemplating selling fish as a hawker must first register and apply for a permit issued by a Public Health Inspector. All fish sold by a hawker must originate from a government inspected food processing plant or other approved source.

A Manitoba Special Dealer's License issued by the Freshwater Fish Marketing Corporation permits the licensee to purchase fish from licensed commercial fishers in the Province of Manitoba and to sell this fish within the Province of Manitoba to fish consumers or to restaurants and retail outlets for consumption in Manitoba. Twelve (12) Special Dealers Licenses were issued between May 1, 2004 and April 30, 2005 with 78,083 kilograms (172,141 pounds) of fish sold within Manitoba. The species percentage was Pickerel 79%, Whitefish 5%, Goldeye 4%, White Bass 3%, Perch 3%, Tullibee 2% and others (catfish, mullet, pike, silver bass, pickerel cheeks) 4%.

Lake Winnipegosis

The Department has established a broad stakeholder management board to provide advice on the management of Lake Winnipegosis. The management goal is the rehabilitation of the walleye population in Lake Winnipegosis. The Lake Winnipegosis Management Board consists of four First Nation appointees, four Department appointees and a Chair. The Board has met six times since its inaugural meeting in October 2003. The Board also held Round Table meetings in communities around the lake to ensure all interested parties had the opportunity to provide input towards development of a sustainable fishery. The Board has encouraged representatives from stakeholder groups, communities and First Nations to approach the Board to be put on the agenda if they have ideas, issues and concerns that they would like to present. Whenever possible, individual Board members also attend local stakeholder group meetings on fisheries issues. Based on all information received to date, including consultants'

reports and biological data, the Board has identified key issues, with the decline in walleye stocks being the greatest concern to everyone. The Board is now proceeding with developing options and specific plans necessary to address these issues. The Board is also developing a Terms of Reference for a study of the Fairford Dam and will be approaching potential partners to incorporate their interests and seek funding support.

Lake Winnipeg

A sub-committee recommended by the Lake Winnipeg Commercial Fisheries Management Advisory Board continues to assist in the development of a longer-term strategy for the commercial fishery. The plan is to focus on commercial fishing issues and to provide management direction for the Lake Winnipeg commercial fisheries for the next 3 to 5 years.

Lake Manitoba

A limited winter perch fishery using 3" mesh nets with controls in place to minimize impact on pickerel and sauger was continued in the south basin of Lake Manitoba. Pickerel production (117,344 kg) in winter decreased by 67% from the previous year, sauger production (3,810 kg) decreased by 83%, and perch production (110,495 kg) decreased by 18%. Sauger production on Lake Manitoba reached an all-time low during the 2004-05 winter season.

Other Programs

There were 28 licensed fish-farmers and about 600 hobby farmers in private waters. Four major operators (two fingerling producers and two brokers/importers) distribute fingerlings to hobby farmers each spring. Five fee-for-fishing businesses, where customers pay to fish in privately-stocked ponds or Crown waters, generally provide easy access to fishing from shore, and are ideal for small children and individuals otherwise unable to angle. Fish farmers reported selling 191,000 rainbow trout fingerlings, and 100,000 arctic char fingerlings. Grow-out operations sold 10,230 kgs of rainbow trout and 3,400 kgs of Arctic char.

Seventy commercial baitfish fishers were licensed, producing and selling about 82,100 kgs of frozen baitfish. Thirty- five live baitfish fishers produced about 105,700 dozen baitfish. Gross sales were about $791,100. Twenty - four leech harvesting licences were issued, with about 1,900 kgs produced, valued at about $85,300. Fifty - seven live bait dealer licenses were issued, allowing retail sale of live baitfish and leeches.

Fisheries Branch continues to co-ordinate the Urban Angling Partnership (UAP), comprised of the Manitoba Wildlife Federation, Fish Futures Inc., Mid-Canada Marine Dealers Association, Don Lamont of *The Complete Angler*. The UAP promotes angling in the city, especially the excellent opportunities on Red and Assiniboine Rivers. UAP activities included:

- *Learn to Fish Clinics*, offered through Winnipeg Community Services Department Leisure Program, aimed at families, new anglers, and those who have not fished for some time. Tackle dealers provide bait, tackle, and instruction, while manufacturers provide equipment. Fish and game clubs provide volunteer assistance.
- *Winnipeg Fish Festival*: a one-day event at The Forks, showcases the recreational angling community and promotes angling in the city as an affordable leisure activity. An estimated 5,000 + visitors attended fish-filleting demonstrations, kids' fishing educational stations, fishing displays, arts and crafts, on-stage seminars, and casting competitions.
- *Fish Winnipeg Media/Corporate Challenge*: a one-day event exposing media and corporate communities to this world-class recreational fishery. The event introduces Winnipeggers to this fishery, showcases the angling community, promotes angling as a healthy, self-esteem-building outdoor leisure activity for youth, and raises funds to benefit Winnipeg youth/youth-at-risk angling

programs. Over $15,000 was raised that was targeted at inner city youth-at-risk, and about 600 children enjoyed an angling experience. Plans for 2005 include expansion of the event and additional kids' fishing camps.

- *Urban Fishing Derby:* The derby is a one day event held at the Forks that promotes recreational angling. The derby provides an opportunity for families to participate in a program that promotes angling in the fall season. Last year, over 250 individuals participated in the event.

The 2005 Anglers' Guide was published in partnership with Fish Futures. The guide summarizes angling regulations, highlights new and proposed regulations, and includes management and other information. Anglers and user groups continued to play an important role in developing regulations and attention is continued to be focused on simplifying regulations without diminishing conservation.

Table FI.5

25.3(d) Sport and Commercial Fishing Management

Expenditures by Sub-appropriation	Actual 2004/05		Estimate 2004/05	Variance Over/(Under)	Expl. No.
	$	FTE	$		
Total Salaries and Employee Benefits	674.7	11.00	615.6	59.1	
Total Other Expenditures	34.9		35.1	(0.2)	

Table FI.6

Angling License Sales and Revenue 1998-99 to 2003-04

Year				Resident/Manitoba – Sr. Conservation			Total: Resident of Manitoba	
				Number	Fee $	Revenue $	Number	Revenue $
1998-99				8,700	5.61	40,315.00	8,700	40,315.00
1999-00				8,935	5.61	41,411.35	8,935	41,411.35
2000-01				8,532	5.61	39,537.52	8,532	39,537.52
2001-02				8,621	5.61	39,940.81	8,621	39,940.81
2002-03				8,341	5.61	38,657.01	8,341	38,657.01
2003-04				12,256	0	(9,593.98)	12,256	(9,593.98)
	Resident of Canada-Regular			Resident of Canada-Conservation			Total: Resident of Canada	
Year	Number	Fee $	Revenue $	Number	Fee $	Revenue $	Number	Revenue $
1998-99	57,381	14.02	748,238.62	84,000	8.41	623,386.00	141,381	1,371,624.62
1999-00	57,567	14.02	750,690.37	84,938	8.41	630,356.58	142,505	1,381,046.92
2000-01	56,092	14.02	731,276.84	85,256	8.41	632,700.96	141,348	1,363,977.80
2001-02	56,951	14.02	742,473.02	86,223	8.41	639,893.43	143,174	1,382,366.45
2002-03	54,801	14.02	714,456.02	81,629	8.41	605,678.89	136,430	1,320,134.91
2003-04	53,995	14.02	703,974.90	82,576	8.41	612,873.16	136,571	1,316,848.06
	Non-Resident of Canada – Regular			Non-Resident of Canada- Conservation			Total: Non-Resident of Canada	
Year	Number	Fee $	Revenue $	Number	Fee $	Revenue $	Number	Revenue $
1998-99	7,149	37.38	260,237.62	26,223	20.56	513,312.88	33,372	773,550.50
1999-00	7,192	37.38	261,840.96	27,151	20.56	531,532.56	34,343	793,373.52
2000-01	6,130	37.38	223,166.40	29,959	20.56	586,452.04	36,089	809,618.44
2001-02	6,120	37.38	222,788.60	27,716	20.56	542,490.96	33,836	765,269.56
2002-03	6,075	37.38	221,122.50	26,121	20.56	511,251.76	32,196	732,374.26
2003-04	5,974	37.38	217,466.12	24,952	20.56	488,348.12	30,926	705,814.24
	Total Regular Licenses			Total Conservation Licenses			Total Licenses	
Year	Number		Revenue $	Number		Revenue $	Number	Revenue $
1998-99	64,530		1,008,476.24	118,923		1,177,013.88	183,453	2,185,490.12
1999-00	64,759		1,012,531.20	121,024		1,203,300.49	185,783	2,215,831.79
2000-01	62,222		954,443.24	123,747		1,258,690.52	185,969	2,213,133.76
2001-02	63,071		965,251.62	122,560		1,222,325.20	185,631	2,187,576.82
2002-03	60,876		935,578.52	116,091		1,155,587.66	176,967	2,091,166.18
2003-04	59,969		921,441.02	119,784		1,091,627.30	179,753	2,013,068.32

Note: 1. Revenue figures are net (less vendor's commission).

2. Starting with the 1999-2000 season – angling licenses will be valid from May 1 – April 30. License sale statistics for the 2004-05 Annual Report will be based on the most recent complete season i.e. the 2003-04 season.

Table FI.7

Fishers Employed in Manitoba Commercial Fishery, 2003-2004

	Northern Lakes	Lake Winnipeg	Lake Manitoba	Lake Wpgosis.	Other Lakes	Overall
Summer						
Licence Holders	532	871	49	56	101	1558
Hired Help	236	174	16	69	0	495
TOTAL	768	1045	65	125	101	2053
Winter						
Licence Holders	284	162	461	166	272	1324
Hired Help	199	30	335	117	32	713
TOTAL	483	192	796	283	304	2037
Annual						
Licence Holders	598	921	466	170	272	2354
Hired Helpe	274	184	337	159	32	986
TOTAL	872	1105	803	329	304	3340

Note: Those who fish in more than one area or season, or who fish both as hired help and licence holders, are counted only once in the appropriate Total column. Where hired-help-and-licence-holder duplication occurs, the individual is counted as a licence holder. Therefore, the table does not total horizontally or vertically.

Table FI.8

Commercial Fishing Production (Round kg), Total Value and Employment (Licensed Fishers Plus Hired Help) 1994-95 to 2003-2004.

Year	Northern Lakes		Lake Winnipeg		Lake Manitoba		
	Weight (kg)	$ Value	Weight (kg)	$ Value	Weight (kg)	$ Value	
1994-95	2,572,500	3,887,600	4,655,500	11,174,800	821,000	2,747,250	
1995-96	3,081,050	5,033,450	4,836,400	12,177,900	2,027,500	3,462,250	
1996-97	3,339,650	4,290,500	4,312,600	8,864,050	1,344,450	1,840,450	
1997-98	2,621,550	3,565,750	3,991,600	8,340,050	1,518,000	2,207,800	
1998-99	2,761,800	4,350,500	4,825,600	14,119,350	1,734,450	2,284,800	
1999-00	3,235,650	5,087,500	5,419,050	16,983,500	1,943,950	2,416,950	
2000-01	3,318,650	5,608,800	6,217,850	20,386,750	2,342,400	2,847,050	
2001-02	3,188,100	5,341,850	6,237,950	20,380,350	2,115,750	3,797,100	
2002-03	3,260,350	5,750,000	6,204,150	20,894,400	2,286,850	2,877,650	
2003-04	3,025,250	4,883,100	6,543,300	17,030,250	1,995,650	1,992,400	

Year	Lake Winnipegosis		Other Lakes		Manitoba Total		
	Weight (kg)	$ Value	Weight (kg)	$ Value	Weight (kg)	$ Value	Total Employment
1994-95	775,350	436,400	989,000	1,911,550	9,813,350	20,157,600	3,125
1995-96	1,385,000	659,750	1,195,300	1,555,900	12,525,250	22,889,250	3,345
1996-97	1,635,650	682,500	1,190,800	1,089,350	11,823,150	16,766,850	3,325
1997-98	1,465,050	842,800	915,700	725,050	10,511,900	15,681,450	3,237
1998-99	2,106,550	1,892,650	775,000	1,273,000	12,203,400	23,920,300	2,990
1999-00	2,719,850	2,266,250	778,550	951,850	14,097,050	27,706,050	3,216
2000-01	2,753,550	2,004,200	892,250	1,131,450	15,524,700	31,978,250	3,224
2001-02	2,577,000	1,846,600	702,400	917,200	14,821,200	32,283,100	3,229
2002-03	2,681,150	1,416,400	661,250	827,800	15,093,750	31,766,250	3,186
2003-04	2,221,550	1,111,300	1,171,200	1,832,850	14,956,950	26,849,900	3,340

NOTE: *Total value includes both Initial Value and Final Payment.*

Table FI.9
Commercial Fishing Production (Round Weights kg) by Area and Total Value by Species, 2003-2004.

Species	Northern Lakes		Lake Winnipeg		Lake Manitoba		Lake Winnipegosis	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Bass			13,750	2,350				
Carp	550	200	48,950	7,900	149,700	46,600	72,650	59,300
Goldeye	4,150	550	5,150	400			Trace[2]	Trace[2]
Maria	3,700	3,500	350	2,450		2,950		1,600
Mullet	379,650	140,900	176,350	41,150	724,700	411,500	1,050,650	595,600
Perch	500	2,500	64,350	18,800		136,200	150	49,000
Pickerel	756,050	140,800	2,909,000	543,150		361,300	36,600	30,650
Pike	657,050	225,250	100,050	5,600		134,750	16,600	217,150
Sauger	12,250	1,500	568,800	160,700		21,900		50
Trout	33,050	Trace[2]						
Tullibee	39,100	7,550	150	Trace[2]				Trace[2]
Whitefish	531,850	84,600	1,314,850	559,050		6,050	37,850	53,700
Total	2,417,900	607,350	5,201,750	1,341,550	874,400	1,121,250	1,214,500	1,007,050

[1] Includes Buffalo, Cedar, Chitek , Cross Bay, Dauphin, Inland, Little Strong, Leaf, Mire-Proulx, Pelican, Red Deer, Reedy, Sisib-Pickerel, St. Martin, Strong, Swan, Tan, Waterhen

[2] Small amount.

[3] Total $ value includes both initial value and final payment.

NOTE: Commercial fishing statistics for 2004-2005 fiscal year were not available in time to be included in this report. They will appear in the annual report for the next fiscal year.

Table FI.9
Commercial Fishing Production (Round Weights kg) by Area and Total Value by Species, 2003-2004.(continued)

Species	Other Lakes[1]		Total Production			Total Value $[3]		
	Summer	Winter	Summer	Winter	Total	Summer	Winter	Total
Bass			13,750	2,350	16,100	7,800	1,100	8,900
Carp	14,250	35,100	286,100	149,100	435,200	128,450	59,850	188,300
Goldeye	50	Trace[2]	9,350	950	10,300	24,500	2,350	26,850
Maria		400	4,050	10,900	14,950	1,050	2,550	3,600
Mullet	207,200	104,850	2,538,550	1,294,000	3,832,550	632,600	326,000	958,600
Perch	350	5,750	65,350	212,250	277,600	256,250	681,300	937,550
Pickerel	299,750	84,250	4,001,400	1,160,150	5,161,550	14,328,100	3,523,000	17,851,100
Pike	190,650	118,700	964,350	701,450	1,665,800	640,950	435,000	1,075,950
Sauger	Trace[2]	50	581,050	184,200	765,250	1,917,100	574,950	2,492,050
Trout			33,050	Trace[2]	33,050	29,250	Trace[2]	29,250
Tullibee	4,750	2,350	44,000	9,900	53,900	29,050	5,900	34,950
Whitefish	9,850	92,900	1,894,400	796,300	2,690,700	2,326,400	916,400	3,242,800
Total	726,850	444,350	10,435,400	4,521,550	14,956,950	20,321,500	6,528,400	26,849,900

[1] Includes Buffalo, Cedar, Chitek , Cross Bay, Dauphin, Inland, Little Strong, Leaf, Mire-Proulx, Pelican, Red Deer, Reedy, Sisib-Pickerel, St. Martin, Strong, Swan, Tan, Waterhen

[2] Small amount.

[3] Total $ value includes both initial value and final payment.

NOTE: Commercial fishing statistics for 2004-2005 fiscal year were not available in time to be included in this report. They will appear in the annual report for the next fiscal year.

Northern Fishermen's Freight Assistance

The Northern Fishermen's Freight Assistance (NFFA) program assists marginal commercial operations by partial subsidization of transporting certain species to Winnipeg. Fishers pay the first 20¢/kg of freight, Manitoba pays the next 45¢/kg, and fishers pay any costs over 65¢/kg. Eligible species are whitefish, pike, lake trout, perch, goldeye, tullibee and sucker. Subsidy payments to fishers are issued weekly by Freshwater Fish Marketing Corporation (FFMC) on behalf of Manitoba. Fishers allowed to opt out of FFMC are paid by the Branch at season end.

To ensure expenditure does not exceed the $410,000 cap set in 2000, fishers receive an initial payment, usually 70% of their estimated eligibility. They receive final payment at fishing-year end. While a full 30% final payment may not be possible when production is high, a final payment higher than 30% may occur in low-production years. NFFA paid about $367,000.00 to 401 fishers for 2004 summer season. Payments to 37 fishers for winter season were about $33,000.

Table FI.10

25.3(e) Northern Fishermen's Freight Assistance

Expenditures by Sub-appropriation	Actual 2004/05	Estimate 2004/05		Variance Over/(Under)	Expl. No.
	$	FTE	$		
Total Other Expenditures	410.0		410.0	0.0	

Fisheries Enhancement Initiative

In its 12th year, the Federal Enhancement Initiative has funded 277 projects directed at enhancing fish populations and their habitat as well as funding educational opportunities. This year the FEI broadened its funding criteria to include creel surveys on two northern Manitoba lakes - Athapapuskow and Kississing lakes, as well as initiatives to reduce the risk of spreading rainbow smelt. An ultra violet light microscope with camera was purchased to support an oxytetracycline (OTC) study on Lake Manitoba. Walleye fry will be marked with oxytetracycline prior to release, and later sampled from the commercial fishery catch, and checked for OTC marks using the microscope.

Many enhancement project submissions resulted from watershed inventory studies. These inventories compile and prioritize sites, based on benefits to the aquatic ecosystem, which require rehabilitation. Ongoing stream bank restoration through fencing, off shore waterers, controlled crossings and revegetation work on Brookdale Drain, Boggy Creek, Irwin Lake, Pipestone Creek, Graham Creek and Stoney Creek are examples.

Educational opportunities existed through:

- the support of Manitoba Envirothon, a provincial high school competition;
- the design and printing of a trout stocking brochure and map as well as assisting in the update of a youth fishing publication; and
- the purchase of floor tanks to train northern youth in hatchery husbandry and provide viewing opportunities of northern Manitoba fish species.

Projects physically improving fish habitat included:

- construction of riffles in Hillside Drain to reduce the amount of sediment entering Cooks Creek; and
- installation of aeration units in Eagles Lake and Twin Lakes to reduce winterkill.

Table FI.11

25.3(f) Fisheries Enhancement Initiative

Expenditures by Sub-appropriation	Actual 2004/05	Estimate 2004/05		Variance Over/(Under)	Expl. No.
	$	FTE	$		
Other Expenditures					
- Grants/Transfer Payments	347.6		350.0	(2.4)	
Total Other Expenditures	347.6		350.0	(2.4)	

Water Quality Management

The Water Quality Management Section assists in the protection, maintenance, and where necessary, rehabilitation of aquatic ecosystems, through the application of principles of sustainable development and the innovative management of risks by:

- Operating an ambient monitoring network on major streams, lakes and recreational beaches, assisted by volunteers, regional personnel and organizations, such as conservation districts.
- Conducting issue-based, site-specific studies, usually by intensive short-term sampling, to assess point and non-point source impacts from agriculture, mining, forestry, municipal discharges, and others.
- Supporting and participating in scientific studies to better understand impacts of human disturbance on aquatic ecosystem structure and function.
- Developing and recommending water quality standards, objectives and guidelines to protect water quality and ecosystem integrity.
- Providing technical and scientific support to the department, various levels of government, Clean Environment Commission and others.
- Providing input to the Canadian Council of Ministers of the Environment Water Quality Task Group.
- Co-operating with neighbouring jurisdictions to protect water quality from upstream developments.
- Addressing non-point source pollution in partnership with volunteers, municipalities and others.
- Educating volunteers and citizen groups to foster awareness and empower local stewardship. Activities include presentations and non-technical articles for newsletters.
- Reviewing proposals under *The Environment Act* and *The Dangerous Goods Handling and Transportation Act*, and other technical documents or proposals including Intensive Livestock Proposals, Crown Land Proposals, and Drainage Proposals.
- Leading aquatic ecosystem protection, including participating in local, provincial, regional, national and international committees, to address issues and to develop co-ordinated actions.
- Administering the Canada-Manitoba Water Quality Monitoring Agreement.
- Developing and implementing co-operative, proactive strategies to prevent invasion by zebra mussels and other foreign aquatic species.
- Contributing to sustainability reporting, including operation of ambient monitoring sites in several ecozones, database maintenance and incorporation of community and ecosystem-level monitoring and reporting tools to provide information on sustainability indicators, including the Canadian Council of Ministers of the Environment's Canadian Water Quality Index.

- Managing acquisition of on going, high-quality laboratory analytical services for the department.
- Managing water quality data in a secure, user-friendly system that meets complex, on going needs of the section, department, clients and partners.

Priority Activities in 2004-2005

- Completed the Assiniboine River Study. Information generated from this study will assist in ensuring that existing and future development along Assiniboine River occurs in a sustainable manner. This work is being co-ordinated with studies conducted by the Cities of Brandon and Portage la Prairie.
- Worked with cottage-owner associations, lake and stream stewardship groups, conservation districts, municipalities and other local authorities, to collect water quality information and to develop co-operative, basin-wide approaches to maintaining and rehabilitating water quality.
- Ambient water quality monitoring activities continued at over 50 sites. Up to 100 water quality variables were measured at most sites year round, while bottom invertebrate community was assessed at about 25 sites. Both water chemistry and structure of the invertebrate community assist in determining ecosystem health. Data is requested by external stakeholders and is used by the department, for example, to determine assimilative capacity for discharge licensing under *The Environment Act*.
- Water quality was monitored at over 60 beaches and information was posted on the department's Internet website. Water Quality continued to work with Manitoba Health in reviewing the Beach Posting Policy.
- In conjunction with Manitoba Health, Water Quality developed the Clean Beaches Program committed to reducing health risks to beach visitors from water-borne illness. This program is designed to minimize the public's exposure to disease-causing organisms in recreational waters at Manitoba beaches. Each beach that is regularly monitored by government has been posted with signs informing visitors on how they can protect the beach and reduce their risk of exposure to disease causing organisms.
- Studies of Escherichia coli (E-coli) were conducted on Lake Winnipeg to identify the source of bacteria at some of the beaches. Studies have shown that large numbers of E.coli are present in the wet sand of beaches. During some periods of high winds when water levels are rising in the south basin, these bacteria can be washed out of the sand and into the swimming area of the lake. Research has shown that less than 10 percent of the E. coli at Lake Winnipeg beaches is from human sources, with the remaining numbers being from birds and animals. Study results significantly enhance the present understanding of water quality in Lake Winnipeg.
- Significant work continued on Manitoba's Nutrient Management Strategy. Arising from the Nutrient Management Strategy was the Lake Winnipeg Action Plan. This plan commits to reducing levels of nitrogen and phosphorus in Lake Winnipeg to those concentrations that existed prior to the 1970s. Part of the Lake Winnipeg Action Plan is the establishment of the Lake Winnipeg Stewardship Board. The Water Quality Management Section provided considerable support to the Board including assisting with the preparation and printing of their interim report entitled, Our *Collective Responsibility Reducing Nutrient Loading to Lake Winnipeg*.
- As over 70% of Manitoba's surface water originates in other jurisdictions, the section plays a major role in ensuring that transboundary water quality is protected and of sufficiently good quality to meet our needs. The section participates on such international committees as the International Joint Commission's International Red River Board, the Prairie Provinces Water Board and others.
- Support is provided to oppose interbasin transfer of water and the threat posed by aquatic nuisance species from the proposed Devils Lake outlet and the Garrison Diversion Project. Lawsuits continue on one of the Garrison projects and new actions were launched on the Devils Lake outlet project.
- Significant effort was dedicated to programs and co-ordinated efforts to prevent zebra mussel and other nuisance aquatic species from being introduced, including the deployment of student inspectors to border crossings.

- Co-ordinated the department's acquisition of high quality analytical services to support our technical and scientific programs, through the administration of contracts with two laboratories.
- Provided input to the development of *The Water Protection Act* and associated regulations.

Table FI.12

25.2(g) Water Quality Management

Expenditures by Sub-appropriation	Actual 2004/05	Estimate 2004/05		Variance Over/(Under)	Expl. No.
		FTE	$		
Total Salaries and Employee Benefits	530.0	8.00	500.2	29.8	
Total Other Expenditures	221.9		219.7	2.2	

Office of Drinking Water

The Office of Drinking Water is established to:

- Provide assurance for the provision of safe, adequate, aesthetically pleasing and acceptable public drinking water for present and future Manitobans and for visitors to Manitoba.
- Provide a drinking water program that maintains public health protection.
- Promotes the involvement of the public, government agencies and departments, communities and private organizations in the decision making process for ensuring safe drinking water.

During this fiscal year, the Office of Drinking Water undertook the following activities and action to achieve its objectives:

- Two regulations to support the Drinking Water Safety Act were drafted.
- Stakeholder consultation on the draft regulations was completed.
- The Office of Drinking Water website was launched.
- A guidance document on the selection and design of drinking water disinfection systems was completed by Engineering Consultants to support the implementation of new approval requirements under the Drinking Water Safety Act.
- An operation and maintenance manual for operators of small drinking water systems was prepared in collaboration with Engineering Consultants to support the ability of small drinking water systems to meet upcoming regulatory requirements and ensure the ongoing protection of public health. Document to be completed by the end of August, 2005.
- A consumer's guide to drinking water and in-home water treatment devices was prepared in collaboration with a local publisher for use as a public education tool. Document to be developed jointly with Health Canada.
- Information materials, draft licenses and permits, and other supporting materials were prepared for the release of the new Drinking Water Safety Act supporting regulations.
- Enhanced compliance monitoring of Manitoba's 400 public water systems occurred. Inspections were more comprehensive than in previous years due to the hiring of staff dedicated to the Drinking Water Program. Work is proceeding on the first annual report required by the Drinking Water Safety Act.
- Enhanced technical support to water treatment plant operators was provided by Drinking Water Officers.
- Technical support was provided for five public water supply system emergencies.

- Continuing activities relating to the identification, inspection and inventory of Manitoba's 1500 + semi-public water systems were undertaken. Regulatory activities will increase upon the enactment of the regulations under the Drinking Water Safety Act.
- Several semi-public systems have now been placed on sampling schedules and are being monitored for microbiological water quality.
- Ongoing co-ordination of analytical services for Drinking Water occurred including: chemical quality analyses of water supplies, microbiological testing of public water systems and microbiological testing of private and semi-public water systems. Manitoba subsidizes 70% of all the costs of all microbiological testing.
- A lead role was maintained in investigations relating to Water Supply Emergencies and Boil Water Advisories jointly with the Office of the Chief Medical Officer of Health and the Regional Medical Officers of Health.
- Participation continued on the Federal/Provincial /Territorial Committee on Drinking Water on the development of Canadian Drinking Water Quality Guidelines and other issues of National interest relating to the production and distribution of a safe water supply.
- Over 30 presentations were given to a variety of interest groups on drinking water-related topics and most frequently on the upcoming drinking water legislation.
- Participation continued in the delivery of water system operator training courses and on a Canada-Manitoba Infrastructure Program committee.
- Work continued on the implementation of the Drinking Water module of Manitoba's EMS database.
- Worked collaboratively with Manitoba Conservation and Manitoba Housing to develop a strategy for undertaking assessments of their drinking water systems required under upcoming regulations.

Table FI.13

25.3(h) Office of Drinking Water

Expenditures by Sub-appropriation	Actual 2004/05	Estimate 2004/05		Variance Over/(Under)	Expl. No.
	$	FTE	$		
Total Salaries and Employee Benefits	1,022.6	18.00	967.4	55.2	
Other Expenditures	433.8		675.3	(241.5)	1

1. Lower expenditures related to lower than anticipated 2004/05 uptake of subsidized private well testing.

Regional Fisheries Resources

Interlake Region

The commercial net fishery on the south basin of Lake Winnipeg opened on May 27, 2004. This opening date was based on 80% spawned out pickerel in the south basin. All other areas of Lake Winnipeg opened for commercial fishing on June 1, 2004. The Lake Winnipeg Commercial Fisheries Advisory Board convened twice during the year.

Commercial fishing on Lake Winnipeg continued to produce large volumes of fish. Approximately 94% of the lake quota (6.4 million kgs) was harvested during the open water and winter fisheries. Pickerel was the dominant species harvested followed by whitefish and sauger (see below). Long-term trends

show a steady increase in pickerel harvest, a slight increase in whitefish harvest and steady decline in sauger harvest.

Commercial fishing on Lake Manitoba was delayed slightly due to a slow freeze-up. The 95mm fishery in the south and north basins opened on November 1, 2004 and ran to March 15, 2005 in the south basin and March 31, 2005 in the north basin. An eight week 75mm perch fishery operated in the south basin between January 1 and February 28, 2005. Overall pickerel/sauger/perch production was down approximately 55% from the previous year (see below). Sauger production on Lake Manitoba reached a record low this season.

The Region reviewed several habitat related work proposals and thus continued integrating its fish habitat work with Fisheries and Oceans Canada.

Table FI.14

Commercial Fish Harvest, Interlake Region (kg round weight)

Lake Manitoba	Pickerel	Sauger	Perch
1999-00	311,200	62,820	83,860
2000-01	411,700	27,900	86,460
2001-02	263,640	15,460	445,280
2002-03	238,700	21,600	304,300
2003-04	358,752	22,272	135,853
2004-05	117,344	3,810	110,495

Lake Winnipeg	Whitefish	Pickerel	Sauger
1999-00	928,864	2,727,955	949,500
2000-01	1,360,000	3,614,500	845,500
2001-02	1,710,300	3,211,460	664,780
2002-03	1,597,700	3,212,700	739,000
2003-04	2,009,402	3,393,744	739,640
2004-05	1,679,335	3,754,837	581,324

Western Region

Staff sit on or act in an advisory capacity to numerous groups in the region involved in watershed management and planning. Conservation District led watershed-planning groups/boards taking the initiative in sustainable land and water use practices will increase with the introduction of the new Water Protection Act.

Dauphin Lake Co-management initiative between the Province and West Region Tribal Council continues to be a work in progress. Discussions continue with WRTC to establish sustainable allocations of the fisheries resource for all users. The buy back of commercial licenses for reallocation to First Nations has acquired 9 of the 15 targeted.

In conjunction with Fish and Lake Improvement Program for the Parkland Region (FLIPPR) an aeration system was installed on Twin Lakes. Several other older systems on other lakes were repaired and

upgraded. Dissolved oxygen monitoring of stocked waters within the region was conducted to evaluate over-wintering success.

Completed annual fish stock assessment on six lakes within the region. Additional index netting was completed on other lakes to monitor stocking success and extent of winterkill.

Regional staff continue to review the Forestry Annual Operational Plans near waterways with the industry. Approximately 200 harvest blocks and associated crossings were mitigated in collaboration with DFO staff.

Northwest Region

Meetings were held with the Saskatchewan River Sturgeon Management Board. Annual tagging and data collection program of Saskatchewan River lake sturgeon was completed in conjunction with the ten year management plan.

A creel census was conducted on Athapapuskow Lake and Kississing Lake. The data collected will be incorporated with existing information to assist with fisheries management decisions for the multi use fishery. Annual fish stock assessment was completed on Cedar Lake. Rocky Creek Fisheries Committee completed a two-year study on the fish community within the Reader/Root wetland complex and fish movements in the Rocky Creek Fishway.

Northeast Region

The Island Lake commercial fishery experienced a massive increase in walleye production. All of the fish was marketed outside of FFMC under a Special Dealers License issued by FFMC in 1996. Concerns regarding documentation of production and its end destination resulted in FFMC terminating the license at the end of the summer season. Index netting was completed on Island Lake to establish a baseline for walleye stocks given the increased harvest.

In co-operation with the Nelson River Sturgeon Board, the Region deployed 29 sturgeon telemetry tags and 10 data logging receivers in the Nelson River to assess the degree of sturgeon movement within this system. This project will continue over the winter.

The Region continued to work with representatives of South Indian Lake, Manitoba Hydro and Fisheries and Oceans to develop a long term environmental monitoring plan for Southern Indian Lake. Consultants assessed previously identified major walleye spawning runs, and collected preliminary data on whitefish spawning habitat. Additional walleye and whitefish index and commercial samples were also collected. Past samples were reviewed to determine if there is a linkage between the water regime and year class success. Preliminary results indicate that there may be some linkage between outflows at Missi and the whitefish spawning success.

In co-operation with Norway House Environmental Monitoring Agency, Fisheries continued to conduct index fishing surveys on the major lakes around Norway House, including Lake Winnipeg. The Playgreen Lake fishery continues to undergo significant changes each year, with a substantial portion of fish production coming from Lake Winnipeg.

Regional staff participated in the community consultations in several northern communities regarding the Wuskwatim Generating Station licensing proposal.

Eastern Region

A total of 41 water bodies were stocked with 44,159,669 fish (7,500 brook trout fingerlings, 17,275 brown trout fingerlings, 34,611 rainbow trout fingerlings, 3,425 tiger trout fingerlings and 8,650,000 walleye fry and fingerlings.

The Branch continued to work towards the development of the Winnipeg River Fisheries Management Plan with Sagkeeng First Nation. A consultation process with members of the Sagkeeng community regarding this plan was initiated in cooperation with Indian and Northern Affairs Canada.

The final draft of a Recovery Strategy for the Carmine Shiner (*Federal Species At Risk Act*) was completed in cooperation with the department of Fisheries and Oceans and various stakeholders. It is undergoing final review.

Index netting on Lac du Bonnet, Big Whiteshell, Booster, Madge, Olive, Pelechaty, Rice, and Shirley Lakes was undertaken.

The Region assisted various public groups, including Conservation Districts, in the development and implementation of habitat surveys and restoration projects. It is noted that there has been an increasing interest in improving fisheries habitat and water quality in the region and that the Conservation Districts are expecting to become more involved in these activities.

Work continues on a provincial basis with respect to the development of riparian management guidelines. This is occuring in cooperation with Manitoba Conservation and the forestry industry. Regional perspectives are integral in the development of these guidelines.

Regional input into the development of provincial drainage guidelines continues. The Drainage Committee, comprised of federal and provincial staff, has developed a draft document that has undergone review by a technical Stakeholder Advisory Panel.

Table FI.15

25.3(i) Regional Fisheries Resources

Expenditures by Sub-appropriation	Actual 2004/05	Estimate 2004/05		Variance Over/(Under)	Expl. No.
	$	FTE	$		
Total Salaries and Employee Benefits	760.8	14.00	723.8	(37.0)	
Other Expenditures	175.8		177.3	(1.5)	

The Manitoba Water Services Board

The Manitoba Water Services Board (MWSB) was established under the authority of *The Manitoba Water Services Board Act* in 1972. Its basic objectives are to provide cities, municipalities, towns, villages and individual farmers, with technical and financial support in developing and/or upgrading water and/or sewer infrastructure.

The MWSB's activities are directed by a five-person board, chaired by the Deputy Minister of Manitoba Water Stewardship. The MWSB, which prepares an annual report each fiscal year as a statutory requirement, reports to the Legislature through the Minister of Water Stewardship.

The MWSB is headquartered in Brandon, with the exception of field staff located in Beausejour, Dauphin, Hamiota and Stephenfield. The MWSB also provides for project management functions to other Departments, such as Manitoba Conservation, Intergovernmental Affairs and Trade, and Manitoba Agriculture, Food and Rural Initiatives.

The specific objectives of MWSB are identified in the legislation and met through the grant programs described below and in the section for Expenditures Relating to Capital. The grant program, Sewer and Water Program, assists municipalities with the development of sustainable, cost effective sewer and water infrastructures. A portion of the Sewer and Water Program is allocated to a federally cost shared program known as Water Development, whose primary objective is to provide water to rural residents (rural pipelines), to enhance rural sustainability and drought proof water supplies.

Table WS.1

25.4 The Manitoba Water Services Board

Expenditures by Sub-appropriation	Actual 2004/05 $	Estimate 2004/05 FTE	Estimate 2004/05 $	Variance Over/(Under)	Expl. No.
Total Salaries	1,636.8	28.00	1,592.0	44.8	1.
Total Other Expenditures	315.2		321.8	(6.6)	

Explanation Number:

1. During 2004-05, the Conservation Districts (CD) Program was transferred from MWSB to the Policy and Coordination Branch of the Ecological Services Division. The 5 FTE's continue to remain in the MWSB appropriation and MWSB is to provide banking functions to the CDs.

Capital Assistance Programs

Sewer and Water Program

The MWSB provides technical and financial assistance to municipalities to develop water and sewer systems. Projects where there is documented public health or environmental problems and/or have economic benefits to the Province and the municipality received 50% provincial grants. Projects, which are primarily of local improvement in nature, receive 30% provincial grants. The MWSB provides project management for all projects undertaken, including retaining consulting engineers, public tendering of construction contracts and interim financial management.

The MWSB also provides technical and financial assistance to rural residents, a federally cost shared program known as the Water Development Program. The MWSB grant is generally 33 1/3% of the eligible project costs.

The MWSB signs agreements with a number of communities prior to undertaking sewer and water projects. Totals shown below reflect projects in design phases; under construction; and completed in 2004/05. Details of the programs and projects may be obtained from The Manitoba Water Services Board's Annual Report.

2004/05 Total Clients Serviced	Provincial Grants	Expl. No.
76 Municipalities	10,320.0	1.,2.

Explanation Numbers:

1. Provincial grants enable the MWSB to carry out sewer and water projects totaling about $26.5M. The total includes municipal, as well as Federal, cost sharing on projects.
2. During 2004/05, MWSB provided project management to Manitoba Conservation in the design and construction of the Falcon Lake Water Treatment Plant.

Table CA.1

25.5(a) Sewer and Water Program

Expenditures by Sub-appropriation	Actual 2004/05 $	Estimate 2004/05 FTE	 $	Variance Over/(Under)	Expl. No.
Sewer and Water Grants	10,320.0	0.0	10,800.0	(480.0)	1.

Explanation Number

1. Budget Reduction - October 2004

Conservation Districts Program

The Conservation Districts Program is a partnership between the Province and the participating municipalities to provide for the conservation, control and prudent use of resources through the establishment of Conservation Districts, under *The Conservation Districts Act* of 1972.

The mandate of the program is to promote the sustainable use and management of land, water and related resources on a watershed basis. The Province thus promotes watershed-based partnerships

with municipalities to develop integrated watershed management plans, implement voluntary, incentive based programs and projects through partnerships that address risks to water resources and aquatic ecosystems, and ensure that the ecological integrity and overall health of each watershed is protected by empowering the local district boards to make decisions that will have impacts for present and future generations.

Manitoba provides grants to support the Conservation Districts Programs in areas, such as water management, soil conservation, water storage, wildlife habitat, historic resources and recreation, public education, administration and a variety of other programs that promote sustainable resource management.

In 2004/05 provincial grants totalling $3,955,000 were provided to 16 CDs, as follows:

• Whitemud Watershed	$700,000
• Turtle River Watershed	$400,000
• Alonsa	$240,000
• Turtle Mountain	$300,000
• Cooks Creek	$270,000
• Pembina Valley	$370,000
• West Souris River	$200,000
• Upper Assiniboine River	$250,000
• Intermountain	$210,000
• Little Saskatchewan River	$170,000
• Kelsey	$140,000
• Lake of the Prairies	$135,000
• Tiger Hills	$110,000
• La Salle Redboine	$200,000
• Mid Assiniboine River	$110,000
• Seine-Rat River	$150,000

The annual budgets and activities of the 16 Conservation Districts are directed by a seven-person committee, the Conservation Districts Commission, chaired by the Deputy Minister of Manitoba Water Stewardship. Staff located in Gladstone provides assistance to the Conservation Districts in developing sustainable, integrated watershed management plans and monitors the activities.

In 2004-05, 19 integrated watershed management planning initiatives were either initiated or continued, six municipalities, one city and two towns joined the Conservation District Program, and five new Conservation District development proposals were drafted for consideration by area municipalities.

Programming and financial details may be obtained from the Annual Report for the Conservation Districts of Manitoba.

Table CA.2

25.5(b)(c) Conservation Districts and Recoveries

Expenditures by Sub-appropriation	Actual 2004/05 $	Estimate 2004/05 FTE	Estimate 2004/05 $	Variance Over/(Under)	Expl. No.
Conservation Districts	3,755.0		3,975.0	(220.0)	
Total Recoveries	(2,000.0)		(2,200.0)	200.0	

Minor Capital Projects

Minor Capital Projects

Projects included completion of refurbishment work on the Red River Floodway Inlet Control Structure, refurbishment work on a number of provincial waterway crossings, and replacement of three major bridges crossing provincial waterways: the Canadian Pacific Railways bridge over Tourond Creek (Emerson Subdivision), the Canadian National Railways bridge over the Portage Diversion (Gladstone Subdivision), and a bridge over Hespeler Drain.

Water Control Infrastructure

The Water Control Infrastructure Section is responsible for the oversight, development, direction and administration of programs related to Provincial water control infrastructure, including flood protection works.

The maintenance and capital works programs for maintaining, refurbishing and reconstruction of a number of water control works were developed, and the implementation of these programs was directed. The works include waterways, waterway crossings, water control structures, dams, dikes, drainage channels and major flood control works. Inspection and assessment services were undertaken to maintain safety and function and to identify refurbishment and upgrading requirements. Development proposals that could affect the infrastructure were investigated and authorization permits outlining terms for continued safe and effective use were issued.

The construction of small dams are licensed under *The Water Resources Administration Act*. In 2004/05, 18 licensing applications were received. Seventeen licenses were issued (including for dams whose applications were submitted in 2003/04), and eight licenses are still being assessed or are on hold pending receipt of additional information from the applicant.

A database of provincially-owned infrastructure including maps, plans, field/survey information, and microfiches is maintained. Requests for loans or reproduction were filled and specialized equipment and supplies were maintained.

Table MC.1

25.6(a) Water Projects

Expenditures by Sub-appropriation	Actual 2004/05 $	Estimate 2004/05 FTE	Estimate 2004/05 $	Variance Over/(Under)	Expl. No.
Total Other Expenditures	1,550.2		754.7	795.5	1

1. Over expenditure due to a cost overrun on the Tourand Creek Bridge project by Canadian Pacific Railway.

Costs Related to Capital Assets

The department expended the annual amortization costs of all completed assets, based on the useful life of each asset. Assets purchased or constructed in 2004-05 were expended at one-half the annual amortization rate. The amortization expense also included the portion of corporate information technology projects attributed to the department.

In 2004/05, the Province expanded its capital asset accounting policy to include infrastructure assets.

Capital Investments Infrastructure Assets

Under this appropriation, three multi-year projects were undertaken. Much of the South Buffalo Creek drain enhancement project was completed, significant refurbishment work was undertaken on the Fairford Dam and Control Structure, and engineering studies and land acquisition was undertaken in the Shellmouth Dam Federal-Provincial project.

Table CC.1

25.7 Costs Related to Capital Assets

Expenditures by Sub-appropriation	Actual 2004/05	Estimate 2004/05		Variance Over/(Under)	Expl. No.
	$	FTE	$		
(a) Desktop Services					
(1) Amortization Expense - Hardware and Transition	24.0		22.2	1.8	
(2) Enterprise Software Licenses	40.9		40.9	0.0	
(b) General Assets					
(1) Amortization Expense	142.0		103.1	38.9	
(2) Interest Expense	23.1		22.9	0.2	
(c) Infrastructure Assets					
(1) Amortization Expense	2,242.9		2,958.8	(715.9)	1
(2) Interest Expense	3,014.5		3,986.3	(971.8)	

1. Lower than anticipated costs related to infrastructure assets as a result of fewer than anticipated Part B – Capital Investment projects being completed in 2004/05.

Flood Proofing Programs

Funding assistance continued for flood protecting homes, businesses, farms and communities in Red River Valley.

Manitoba Water Stewardship administered the $100 million Phase II Canada Manitoba Partnership Agreement on Red River Valley Flood Protection. The $50 million provincial contribution was allocated among five program elements as follows:

- Home/business flood proofing ($20.3 million)
- Community diking ($17.5 million)
- City of Winnipeg work ($5.2 million)
- Environmental impact mitigation ($2.5 million)
- Provincial flood control infrastructure ($4.5 million)

As of March 31, 2005 all Community Ring Dike Projects, including Grande Pointe, St. Mary's Road, Ste. Agathe, Niverville, Riverside, Emerson, Dominion City, Rosenort and St. Lazare were essentially complete. A variety of minor deficiencies remain to be addressed and seeding of dikes will be completed in the 2005.

During the 2005 summer construction season, the final Community Ring Dike Project under the Canada/ Manitoba/City of Winnipeg Agreement on Secondary Diking Enhancements was completed. Program funds will be fully utilized.

Table FP.1

26.1 Flood Proofing Programs

Expenditures by Sub-appropriation	Actual 2004/05	Estimate 2004/05		Variance Over/(Under)	Expl. No.
	$	FTE	$		
Capital Grants	1,441.8		911.9	529.9	1
Infrastructure	225.1		1,408.0	(1,182.9)	1

1. Finalization of accounting treatment for infrastructure capital asset accounting policy introduced in 2004/05 resulted in a re-classification of expenses between the Capital Grants and Infrastructure categories within this appropriation (Part A – Operating Expenditures - 26.1) and the asses appropriation (Part B – Capital Investment – B.15).

Manitoba Habitat Heritage Corporation

MHHC is a provincial Crown Corporation that was established by the *Manitoba Habitat Heritage* Act in 1986. It is governed by a board of directors that is responsible to the Minister of Water Stewardship. It currently functions with one seconded staff position from Manitoba Water Stewardship and approximately 14 full-time contract staff positions in offices located in Killarney, Minnedosa, Reston, Shoal Lake, Brandon and Winnipeg.

MHHC's mandate, conservation, restoration and enhancement of fish and wildlife habitat, is delivered in the agricultural landscape of rural Manitoba. Activities include: conservation of wetland and associated habitats through the North American Waterfowl Management Plan; riparian area conservation and enhancement through the Riparian Health Initiative; protection of habitats for species of concern through the Habitat Stewardship Program for Species at Risk and private land woodlot management activities. MHHC also provides administrative and banking support to related habitat conservation initiatives in support of Manitoba Conservation and NGO partners.

North American Waterfowl Management Plan (NAWMP)

NAWMP is a continent-wide effort to restore waterfowl populations to the levels of the 1970s. Southwestern Manitoba, which is part of the Canadian prairie pothole region, is a key waterfowl production area and a priority region under NAWMP. This allows Manitoba NAWMP partners to attract funding for conservation activities from sources outside the province, including the United States (Federal, State and non-government sources) and Canada (Federal and NGO). For each dollar of expenditure by Manitoba for NAWMP activities, over seven dollars of non-Manitoba funds are expended.

MHHC receives a core grant of $645.0 for NAWMP operations from Manitoba Conservation. That funding allows MHHC to maintain a network of staff to coordinate NAWMP implementation and carry out field delivery, communications, evaluation, management and reporting activities on behalf of NAWMP partners. MHHC also participates in NAWMP planning activities at the regional, national and international levels. It receives program delivery support funds from Environment Canada and from United States sources through a partnership with the Delta Waterfowl Foundation.

MHHC also delivers a NAWMP field program, called *Potholes Plus*, through a partnership with Delta Waterfowl Foundation. The focus is delivery of perpetual conservation agreements (easements) for wetland and associated habitats on private, agricultural land. These conservation agreements (CAs) are mostly purchased, and ensure that habitat lands are protected from development while the surrounding agricultural lands continue to be used for agricultural purposes. Lands with CAs remain in private ownership. The CA restriction remains in force, even after the land changes hands.

In 2004/05, MHHC purchased 44 CAs on 6,606 acres of wetland and associated habitats. It also received one CA donation, totaling 156 acres, bringing the total amount of CAs acquired to 6,762 acres. In addition, MHHC received two land donations, totaling 800 acres.

Since inception, MHHC has secured 130 CAs on 18,308 acres of land through the Potholes Plus program.

MHHC's total portfolio of secured lands through CAs, for all of its initiatives (see below), is 225 parcels totaling 35,316 acres.

Riparian Health Initiative

MHHC coordinates a broad-based, cooperative approach to the conservation and enhancement of riparian and associated lands through the Riparian Health Initiative (RHI).

The RHI grew from a desire to improve coordination and integration of cooperative activities for riparian and associated lands in Agro Manitoba. The RHI partners are a broad consortium of public and private agencies and organizations from the agricultural and conservation communities.

Core RHI support comes from Agriculture and Agri-Food Canada through the Manitoba Rural Adaptation Council. MRAC funding supports coordination activities and the delivery of riparian area stewardship projects in cooperation with agricultural producers.

Coordination Activities

Coordination of riparian activities is enhanced through the operation of the provincial Riparian Health Council (RHC) and five Regional Riparian Working Groups (RWG). The Council is chaired by The Manitoba Cattle Producers Association and MHHC provides secretariat services. In 2004/05 the Council held two meetings and conducted a field tour of RHI projects. More than a dozen RWG meetings and/or field tours were held as well. Special projects that were delivered by MHHC on behalf of the RHC included the development of grazing guidelines for riparian areas and the development of a riparian extension program, *Managing the Water's Edge* (see below).

Stewardship Projects

The bulk of MRAC funds have been dedicated to the delivery of riparian enhancement projects with agricultural producers. Cost-shared incentive funds, to a maximum of $2,500 per project, are offered to producers wishing to adopt livestock grazing and watering or buffer strip establishment practices along stream banks and lake shores that will enhance the health of riparian areas. Most funds are spent on fencing that allows producers to manage access to their riparian areas and establish better grazing management on the rest of the pasture.

When combined with livestock watering options that deliver a cleaner source of drinking water, a majority of cooperating producers report that their net incomes have benefited from the new system. As well, virtually all cooperators report that they would recommend this approach to their friends and neighbours. Producer contributions to projects are generally cash (material purchases) and in-kind (installation). It often takes a year to 18 months to complete a project once a 10-year agreement is signed with the farmer.

In 2004/05, with the livestock industry still reeling from the impacts of Bovine Somatotrophic Encephaly (BSE) and low crop prices, the number of completed projects with producers dropped significantly from pre-BSE levels. However, in spite of the overwhelming problems, a number of new projects were signed up. Many producers with project agreements indicated that it would take more time than originally expected to complete their projects. A total of 28 projects, affecting 55 miles of shoreline and 6,600 acres of land, were completed and an additional 72 project proposals were in various stages of development at year end.

Managing the Water's Edge (MWE)

Through the RHI, MHHC has worked with Manitoba Agriculture, Food and Rural Initiatives and a number of other agriculture and conservation agencies and organizations to develop and deliver a riparian management extension program called *Managing the Water's Edge*. The intent of the program is to provide useful information for landowners and managers to help them better manage riparian and associated lands.

The program targets landowner and community-based groups, delivering hands-on workshops that outline riparian area functions and values and teach a user-friendly, self-assessment system to assess riparian health. MWE is patterned after an acclaimed Alberta program, Cows and Fish, and is built on a network of trained workshop facilitators which MHHC coordinates. In 2004/05 this initiative was supported by funding from the Agriculture and Agri-Food Canada's Greencover initiative and Fisheries and Oceans Canada.

A total of 16 workshops were delivered to 254 agricultural producers and land managers in 2004/05. Training activities were also undertaken to enhance the skill-set of facilitators.

Habitat Stewardship Program for Species at Risk

MHHC is able to access federal funding for habitat protection activities in priority areas in southwestern Manitoba. In 2004/05 a total of $381.8 was available to MHHC to support the purchase of perpetual CAs. One of the two main targets is riparian habitat in the Assiniboine River basin for aquatic species of concern, like the carmine shiner, bigmouth buffalo, silver chub and chestnut lamprey. The other is native mixed-grass prairie sites for species like buffalograss, northern prairie skink, loggerhead shrike and Sprague's pipit. The program may also secure habitats in a specified locale that are critical for an identified species of concern.

In 2004/05 a total of 26 CAs were completed for 6,789 acres of habitat.

Manitoba Agro Woodlot Program

MHHC has operated a private land woodlot management program since 1992. Its function has been to deliver private land forestry services to landowners interested in sustainable woodlot harvest and management to diversify farm family income in an environmentally sustainable manner. Program activities have included providing woodlot assessment and management plans, supporting tree-planting, and providing a range of workshop and skills training sessions to support the development of a micro-forestry industry in agricultural regions of the province.

In 2004/05 the program was transferred from MHHC to Manitoba Agriculture, Food and Rural Initiatives. MHHC continues to provide banking and some administrative services.

Revenue and Expenditure Summaries

Table RE.1

Reconciliation Statement

DETAILS	2004-05 ESTIMATES
Printed Estimates of Expenditure 2004/05	**44,723.2**
Allocation of funds from:	
- **Enabling Appropriations re: Internal Reform Workforce Adjustment and GSI**	**121.3**
- **Enabling Appropriations re: Flood Proofing Programs**	**2,319.9**
2004-05 ESTIMATE	**$47,164.4**

Table RE.2

Revenue Summary by Source

For the year ended March 31, 2005 with comparative figures for the previous fiscal year

Actual 2003-04	Actual 2004-05	Increase (Decrease)	Source	Actual 2004-05	Estimate 2004-05	Variance	Expl. No.
			OTHER REVENUE:				
313.9	307.6	(6.3)	Fisheries Fees and Sundry	307.6	313.0	(5.4)	
0.0	0.0	0.0	1997 Flood Proofing Program	0.0	90.6	(90.6)	1
65,208.0	104,713.2	39,505.2	Water Power Rentals	104,713.2	100,000.0	4,713.2	2
412.8	172.7	(240.1)	Water Resources Sundry	172.7	592.8	(420.1)	3
859.8	730.5	(129.3)	Cost Recovery from Municipalities	730.5	975.0	(244.5)	4
0.0	0.0	0.0	Drinking Water Fees	0.0	101.8	(101.8)	5
66,794.5	105,924.0	39,129.5	Subtotal	105,924.0	102,073.2	3,850.8	
			GOVERNMENT OF CANADA:				
(60.6)	0.0	60.6	1997 Flood Proofing Program Phase II	0.0	0.0	0.0	
(60.6)	0.0	60.6	Subtotal	0.0	0.0	0.0	
66,733.9	105,924.0	39,190.1	**Total**	105,924.0	102,073.2	3,850.8	

Explanation Number:

1. No municipal contributions will be received in 2004/05, as the municipal contribution to the Community Ring Dyke program for 2004/2005 has been set-off against the project expenditures.
2. Increase in Water Power Rentals revenue is due to higher median water supply conditions due to the heavy rainfalls in 2004/05.
3. Decrease in Water Resource Sundry is due to delays in Lake Winnipeg Erosion and South Buffalo Drain projects in 2004/05.
4. Decrease in Cost Recoveries from Municipalities due to anticipated recoveries from the Municipalities of Brokenhead Water and Sewer system and Gimli Sewage Treatment Plant projects which were delayed.
5. Decrease in Drinking Water Fees is due to the regulations under the Drinking Water Safety Act which have not been enacted.

Table RE.3

Expenditure Summary

For fiscal year ended March 31, 2005 with comparative figures for the previous year.

Estimate 2004/05		Appropriation	Actual 2004/05	Actual 2003/04	Increase (Decrease)	Explanation Number
		25-1 Administration and Finance				
29.4	(a)	Minister's Salary	29.0	10.8	18.2	1
	(b)	Executive Support				
471.0		Salaries and Employee Benefits	488.4	153.6	334.8	2
195.0		Other Expenditures	148.4	27.8	120.6	3
	(c)	Administration & Financial Services				
272.3		Salaries and Employee Benefits	256.7	247.2	9.5	
12.0		Other Expenditures	24.9	12.0	12.9	4
	(d)	Information Technology Services				
292.1		Salaries and Employee Benefits	307.5	277.2	30.3	
16.0		Other Expenditures	16.0	16.0	0.0	
1,287.8	Total 25-1		1,270.9	744.6	526.3	
		25-2 Water Management				
	(a)	Administration				
303.9		Salaries and Employee Benefits	349.7	461.4	(111.7)	5
2,117.5		Other Expenditures	1,744.4	1,870.2	(125.8)	
25.0		Grant Assistance	13.5	16.0	(2.5)	
	(b)	Water Licensing				
807.3		Salaries and Employee Benefits	876.7	837.9	38.8	
33.2		Other Expenditures	33.3	36.8	(3.5)	
	(c)	Water Planning and Development				
1,156.3		Salaries and Employee Benefits	1,109.6	1,073.9	35.7	
72.7		Other Expenditures	83.7	72.9	10.8	
	(d)	Surface Water Management				
800.2		Salaries and Employee Benefits	807.7	788.6	19.1	
219.1		Other Expenditures	181.0	225.3	(44.3)	
587.0		Canada-Manitoba Agreement for Water Quantity Surveys	587.0	587.0	0.0	
	(e)	Groundwater Management				
959.9		Salaries and Employee Benefits	842.3	883.4	(41.1)	
351.2		Other Expenditures	341.2	342.2	(1.0)	
	(f)	Regional Water Resources				
2,393.5		Salaries and Employee Benefits	2,420.5	2,332.6	87.9	
586.4		Other Expenditures	586.3	521.7	64.6	
4,067.2	(g)	Waterway Maintenance	4,476.6	4,180.7	295.9	
14,480.4	Total 25-2		14,453.5	14,230.6	222.9	
		25-3 Fisheries and Water Quality Services				
	(a)	Administration				
267.5		Salaries and Employee Benefits	253.1	222.4	30.7	
384.2		Other Expenditures	916.6	404.9	511.7	6
	(b)	Fish Culture				
664.7		Salaries and Employee Benefits	621.7	696.2	(74.1)	
202.6		Other Expenditures	201.5	249.6	(48.1)	
	(c)	Aquatic Ecosystem Management				
400.3		Salaries and Employee Benefits	387.7	414.9	(27.2)	
28.3		Other Expenditures	24.5	30.8	(6.3)	

Estimate 2004/05		Appropriation	Actual 2004/05	Actual 2003/04	Increase (Decrease)	Explanation Number
	(d)	Sport and Commercial Fishing Management				
637.6		Salaries and Employee Benefits	674.7	629.3	45.2	
35.1		Other Expenditures	34.9	48.3	(13.4)	
410.0	(e)	Northern Fisherman's Freight Assistance	410.0	410.0	0.0	
350.0	(f)	Fisheries Enhancement Initiative	347.6	348.2	(0.6)	
	(g)	Water Quality Management				
500.2		Salaries and Employee Benefits	530.0	495.3	34.7	
219.7		Other Expenditures	221.9	215.5	6.4	
	(h)	Office of Drinking Water				
967.4		Salaries and Employee Benefits	1,022.6	930.7	91.9	
675.3		Other Expenditures	433.8	381.5	52.3	
	(i)	Regional Fisheries Resources				
778.4		Salaries and Employee Benefits	760.8	756.6	4.2	
177.3		Other Expenditures	175.8	177.3	(1.5)	
6,698.6	Total 25-3		7,016.4	6,411.5	604.9	
		25-4 Manitoba Water Services Board				
1,592.0	(1)	Salaries and Employee Benefits	1,636.8	1,614.3	22.5	
321.8	(2)	Other Expenditures	315.2	351.2	(36.0)	
1,913.8	Total 25-4		1,952.0	1,965.5	(13.5)	
		25-5 Capital Assistance Programs				
10,800.0	(a)	Sewer and Water Programs	10,320.0	9,839.0	481.0	7
3,975.0	(b)	Conservation Districts	3,755.0	3,975.0	(220.0)	8
(2,200.0)	(c)	Less: Recoverable from Urban and Rural Economic Development Initiatives	(2,000.0)	(2,200.0)	200.0	
12,575.0	Total 25-5		12,075.0	11,614.0	461.0	
		25-6 Minor Capital Projects				
754.7	(a)	Water Projects	1,550.2	2,523.3	(973.1)	9
754.7	Total 25-6		1,550.2	2,523.3	(973.1)	
		25-7 Costs Related to Capital Assets				
	(a)	Desktop Services				
22.2	(1)	Amortization Expense – Hardware and Transition	24.0	39.6	(15.6)	
40.9	(2)	Enterprise Software Licenses	40.9	40.9	0.0	
	(b)	General Assets				
103.1	(1)	Amortization Expense	50.4	111.9	(61.5)	
22.9	(2)	Interest Expense	(161.0)	32.0	(193.0)	
	(c)	Infrastructure Assets				
2,958.8	(1)	Amortization Expense	2,239.3	2,167.9	71.4	
3,986.3	(2)	Interest Expense	3,002.4	3,088.5	(86.1)	
7,134.2	Total 25-7		5,196.0	5,480.8	(284.8)	
		26-1 Flood Proofing Programs				
279.0	(1)	Program Administration	213.4	133.8	79.6	

Estimate 2004/05	Appropriation	Actual 2004/05	Actual 2003/04	Increase (Decrease)	Explanation Number
1,129.0 (2)	Community Ring Dykes	12.0	0.0	12.0	
911.9 (3)	City of Winnipeg	1,441.8	721.1	720.7	10
2,319.9 Total 26-1		1,667.2	854.9	812.3	
47,164.4 TOTAL EXPENDITURES		45,181.2	43,825.2	1,356.0	

Explanations:

1. *Increase in Minister's salaries is due to the payment of a full-year of salary to the Minister of Water Stewardship in 2004/05. In 2003/04 partial salary was paid and the new department was established in the third quarter of the fiscal year 2003/04.*
2. *Increase in Executive Support salaries and employee benefits is due to the payment of a full-year of staff salaries in 2004/05. The new department of Water Stewardship was established in the third quarter of the fiscal year 2003/04.*
3. *Increase in Executive Support Operating is due to the payment of a full-year of operating start-up costs in 2004/05. The new department of Water Stewardship was established in the third quarter of the fiscal year 2003/04.*
4. *Increase in Administration and Financial Services operating, for set-up of the new Assistant Deputy Minister's office for Water Stewardship.*
5. *Decrease in Water Management Administration salaries due to government fiscal management requirements.*
6. *Increase is Fisheries and Water Quality Services - Administration, due to legal costs paid for Devil's Lake and Northwest Area Water Supply projects.*
7. *Increase in Capital Assistance Programs due to payment of capital projects for Flin Flon Water Treatment and Brokenhead Water Distribution, delayed in 2003/04.*
8. *Decrease in Capital Assistance Programs is due to delays in Conservation District Projects in 2004/05. As a result there was a corresponding reduction in recoveries from Urban and Rural Economic Development Initiatives.*
9. *Decrease in Minor Capital Projects is due to the transfer of funds in 2004/05 to Part B Capital with the introduction of Infrastructure.*
10. *Increase in Flood Proofing Program - City of Winnipeg projects carried forward from 2003/04 to 2004/05.*

Table RE.4
FIVE YEAR EXPENDITURE AND STAFFING SUMMARY BY MAIN APPROPRIATION
for the fiscal years ended March 31, 2001 to March 31, 2005

		ACTUAL/* ADJUSTED ESTIMATES OF EXPENDITURE									
		2000/2001		2001/2002		2002/2003		2003/04		2004/05	
	Main Appropriation	FTEs	$(000's)	FTEs	$(000's)	FTEs	$(000's)	FTEs	$(000's)	FTEs	$(000's)
25-1	Administration and Finance	9.00	526.9	9.00	554.9	9.00	597.7	12.00	744.6	16.00	1,270.9
25-2	Water Management	109.99	12,583.8	110.38	13,917.0	118.99	13,967.3	119.19	14,230.6	118.19	14,453.5
25-3	Fisheries and Water Quality Services	61.19	4,685.3	62.19	6,270.6	79.19	6,856.9	75.49	6,411.5	76.49	7,016.4
25-4	Manitoba Water Services Board	30.00	1,838.4	30.00	1,852.4	30.00	1,880.3	30.00	1,965.5	27.00	1,952.0
25-5	Capital Assistance Programs		14,906.0		13,435.1		14,347.0		13,814.0		14,075.0
25-5	Recoverable from REDI		(2,200.0)		(2,850.0)		(2,200.0)		(2,200.0)		(2,000.0)
25-6	Minor Capital Projects		996.6		1,322.2		1,508.6		2,523.3		1,550.2
25-7	Costs Related to Capital Projects		6,386.0		6,394.4		6,937.9		5,480.8		5,196.0
	Sub-total Operating Appropriations (BA25)	210.18	39,723.0	211.57	40,896.6	237.18	43,895.7	236.68	42,970.3	237.68	43,514.0
26-1	Flood Proofing Programs (Vote 26)								854.9		1,667.2
	Total Appropriations	211.57	36,747.0	211.57	40,896.6	237.18	43,895.7	236.68	43,825.2	237.68	45,181.2

* Adjusted figures reflect historical data on a comparable basis in those appropriations affected by re-organization, during the years under review.

Publications

Water

Swan Lake Basin Management Plan (produced in partnership with 28 local stakeholder agencies).
Assiniboine Delta Aquifer Management Plan (produced in partnership with 45 local stakeholder agencies).
Manitoba's Clean Beaches Program, Keeping Manitoba's Beaches Clean. (Brochure, July 2004)
Protecting Lake Winnipeg, What You Can Do To Help. (Brochure, August 2004)
Assiniboine River Water Quality Study. Lake of the Prairies to the City of Brandon Water Quality Model. (March 2005 Draft)
Water Quality Assessment of Wekuslo Lake, Manitoba, Canada. (April 2005)
The Manitoba Water Directory (June 2004)

Fisheries

Manitoba 2004 Angling Guide
Trout Fishing Manitoba, 2005. A map of stocked waters with fish information and fly fishing tips, in partnership with Manitoba Fly Fishers Association and Water Stewardship.
Youth Fishing Booklet by the Manitoba Wildlife Federation

Legislation

The Conservation Agreements Act, C.C.S.M. chapter C173
The Conservation Districts Act, C.C.S.M. chapter C175
The Drinking Water Safety Act, C.C.S.M. chapter D101
The Dyking Authority Act, C.C.S.M. chapter D110
The Fisheries Act, C.C.S.M. chapter F90 [except Part III]
The Fishermen's Assistance and Polluters' Liability Act, C.C.S.M. chapter F100
The Floodway Authority Act, C.C.S.M. chapter F133
The Ground Water and Water Well Act, C.C.S.M. chapter G110
The Manitoba Habitat Heritage Act, C.C.S.M. chapter H3
The Lake of the Woods Control Board Act, C.C.S.M. chapter L30
The Manitoba Natural Resources Transfer Act (as it relates to water and fisheries), C.C.S.M. chapter N30
The Natural Resources Agreement Act, 1938, C.C.S.M. chapter N40
An Act to ratify a certain Agreement between the Government of the Dominion of Canada and the Government of the Province of Manitoba, C.C.S.M. chapter N50
The Public Health Act (as it relates to drinking water supplies), C.C.S.M. chapter P210
The Water Commission Act, C.C.S.M. chapter W50
The Water Power Act, C.C.S.M. chapter W60
The Water Resources Administration Act, C.C.S.M. chapter W70
The Water Resources Conservation and Protection Act, C.C.S.M. chapter W72
The Water Rights Act, C.C.S.M. chapter W80
The Manitoba Water Services Board Act, C.C.S.M. chapter W90
The Water Supply Commissions Act, C.C.S.M. chapter W100

and:

Manitoba Fishery Regulations made pursuant to section 43 of the *Fisheries Act* (Canada)

As per Schedule "Q", Order-In-Council 395/2003